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THE

ORDER OF NATURE

CONSIDERED IN REFERENCE TO

THE CLAIMS OF REVELATION.

A Third Series of Essays.

59561

BY

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"It is the great problem of the age to reconcile faith with knowledge, — philosophy with religion."

ARCHDEACON HARE

(LIFE OF STERLING, p. 121).

"Da Fidei quæ Fidei sunt."

BACON.

"Διὰ πίστεως γὰρ περιπατοῦμεν, οὐ διὰ εἴδους."

S. PAUL, 2 Cor. v. 7.

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PREFACE.

THE following discussions, though properly forming a part of *a series*, are yet sufficiently distinct in their nature to be regarded as an independent work: considerable parts of Essays II. III. and IV. were in fact composed long ago, as amplifications of an argument pursued in some articles in a periodical, *portions* of which may be recognised in some parts of the following pages.

In the present work, in the same spirit of free inquiry as in former instances, I have endeavoured to supply what, as far as I am aware, has been hitherto wanting to our theological and philosophical literature, —

a perfectly *impartial*, candid, unpolemical, discussion of the subject of *miracles*, imperatively demanded at the present day, in immediate connexion with the vast progress of *physical knowledge:* and this in not less intimate relation to the grand result of that progress, the firm establishment of the great principle of immutable order, and thence of universal mind in nature. We are thus involved in the larger consideration of the whole relations of *physical*, to revealed or spiritual, truth; and it is to the conclusion of their independence, as relates to the *essential* nature of the Christian revelation, that the whole discussion tends; while the true influence of that revelation is secured as based on the recognition of the important distinction, at once Baconian and Pauline, between the provinces and objects of reason and of faith. The present Essays are avowedly restricted

to the *physical* aspect of the subject, but without at all meaning to undervalue the importance of the corresponding question of the relations of Christianity to *moral* and *metaphysical* philosophy.

In many instances, however, the Christian doctrines *have been* formerly maintained in close connexion with *physical* ideas*, while *those* ideas, and the views taken of them, must of necessity be liable to change and improvement as science advances. And if some expressions, apparently implying such connexion, are retained in the formularies of the Church of England, which thus acquire a modified interpretation, it must also be observed that many points, of great importance, are there left without any determination or mention. Thus, to whatever extent individual, or even general, opinion may have

* See Appendix, No. VII.

given a turn to such questions, they are undeniably perfectly *open questions* to those who adopt these formularies. Of this class are the entire subjects of philosophical theism, or natural theology; — the evidences of Christianity; — the inspiration of the Bible; — the immateriality of the soul; and the nature of miracles.

That thus, in the moderate tone of the requisitions of the Church of England, free course is allowed to more enlightened views, without impugning a system so highly and practically valuable, — is at once the security of the established institution in an age of progress, and supplies the sure means by which eventually the advance of truth, without external innovation, will carry out its noiseless triumph over all artificial obstructions. "Hac certe mente, quæ neminem contemnit, sed nec alius amore alium ultro lædit, agere ipse et

studeo et audeo: veritatis omne imperium internum, λογικόν, liberale, ad omnes patere: externa autem vi atque potentia non posse, itaque etiam non debere, illud proferri: *conservato tamen ordine, et honesta ecclesiæ forma salva.*"— SEMLER, *Instit. Brev.* Pref.

6, Stanhope Street, Hyde Park Gardens,
May,.1859.

ANALYTICAL TABLE

OF

CONTENTS.

INTRODUCTION.

CONNEXION OF THE PRESENT ARGUMENT WITH THAT OF FORMER SERIES OF ESSAYS.

Page

Influence of Science on Theology, direct and indirect - - 2

ESSAY I.—HISTORICAL SKETCH OF THE PROGRESS OF PHYSICAL SCIENCE, AS BEARING ON RELIGIOUS BELIEF.

§ 1.—THE PHYSICAL PHILOSOPHY OF THE ANCIENTS AND OF THE MIDDLE AGES.

First Ideas, vague, imaginary, and mystical: out of these Science elicited: but wanting in Connexion and Sequence 11

Ancient Cosmogonies and other physical Speculations wholly ideal: Conception of "Cosmos:" ancient Theism - - 22

Relations of early Christianity to the prevalent Philosophy 28

Mediæval Philosophy, deductive and verbal: connected with Theology - - - - - - - - - - - 30

Early Speculations on Natural Theology: physical Belief - 35

§ II.—The Epoch of Copernicus, Galileo, and Bacon.

Page

Theory of Copernicus: confirmed by Observations of Tycho: Calculations of Kepler, and Discoveries of Galileo.—The first Triumph of the inductive Philosophy - - - 40
Antagonism of the inductive and the theological Spirit - 46
Progress of Opinion: Montaigne: Scepticism - - - 51
Bacon: his Philosophy and Theology: Union of Induction and Deduction: Reason and Faith distinct - - - 59
Des Cartes: his System founded on Theology, and purely deductive; hence it failed - - - - - - - 75
Advance in Freedom of Opinion: Hobbes, Sir T. Browne, Boyle, Pascal: speculative Theories of the 17th Century 79

§ III.—The Period from Newton to Laplace.

Nature and Value of the Newtonian Discoveries: Influence, direct and indirect - - - - - - - - - 96
Philosophy of Leibnitz: metaphysical, yet advancing physical Truth - - - - - - - - - - 103
Origin of Geology in theological Cosmogonies - - - 108
Progress of cosmical Speculations - - - - - 114
Philosophy of Locke: Advance of positive Views - - 121
Theistic Speculations and Scepticism - - - - 123
Progress of the Idea of universal Law:—Berkeley, Butler 128
Views of Miracles: Middleton, Hume: Theory of Causation 136

§ IV.—The Period from Laplace to the present Times.

Completion of Theory of Gravitation: Clairault, Lagrange, and Laplace: Stability of the Planetary System - - 142
Philosophy and Scepticism in France - - - - 144
Later Researches: Unity of Sciences - - - - 151
Chemistry: Advance from Mysticism: Phlogiston - - 156

Page
Geology: Emancipation from theological View - - - - 158
Progress of Discovery: Development of the Idea of "Cosmos" by Humboldt - - - - - - - - - - 164
Natural History and Physiology: vital Principle: Origin of Species: lingering Remains of Mysticism - - - 167
Sir H. Davy: Epoch in Chemistry: theological Views - 179
Rationalistic Theories of Miracles - - - - - - 184
Positivism: first Principles sound: faulty in some Details: inapplicable to Religion - - - - - - - 187
Recent Natural Theology: Œrsted - - - - - - 198
Extensions and Prospects of Physical Science - - - 201
Inductive Laws of Moral Order - - - - - - 203
Ethnology and Archæology - - - - - - - 208

CONCLUSION.

Influences of Science on Moral Progress: Independence of Faith - - - - - - - - - - - - 211

NOTE: on Recent Bible Philosophy: Reviews of H. Miller, &c.: "Omphalos:" Archdeacon Pratt - - - - - 218

ESSAY II.—NATURE AND REVELATION.

§ 1.—THE ORDER OF NATURE AS BEARING ON THEOLOGY IN GENERAL.

Essential Point of all Inductive Philosophy; universal and perpetual Order - - - - - - - - - - 227
Apparent Limitations of Science only provisional, dependent on Progress of Discovery.—Nature unlimited: no Supernatural in Science - - - - - - - - - 230
Causation: no Antagonism of first and second Causes - 233
Argument of Design: narrow Views.—Hume's Objection: wider View: Reason in Nature, distinct from Theory of Origin - - - - - - - - - - - 235

Page

Cosmo-Theology; Inferences very limited. — Moral and metaphysical Arguments not more advanced: both imply Order - - - - - - - - - - - 241
Omnipotence in Nature: higher Theism beyond Science - 246
Idea of Creation not from Science: Succession of Species not miraculous: Metaphysical Argument. — Idea of Creation from Revelation - - - - - - - - 250

§ II. — The Natural and the Supernatural.

Imagined interruptions in the Order of Nature: extraordinary and marvellous Events not interruptions: Disbelief in occurrence of Miracles at the present day - - - 258
Belief in former Times: Magic and Witchcraft: Apparitions: Marvels not Miracles - - - - - - - - 261
Supposed Spiritual Influences: Inductive Examination of Marvels: Neglect of it: Mysteries in Nature, especially Life: not real Mysteries: extraordinary Physical Influences still natural - - - - - - - - 263
Marvels in History: possible Explanations by Natural Causes; or by supposing Narratives fictitious - - - - 273

§ III. — Revelation and Miracles.

Impressions apart from Reason: Spiritual Influence not at variance with Physical Truth - - - - - 276
Revelation, in itself, distinct from external Miracles: Hume's Objection on this Point - - - - - - - 279
Alleged Necessity of Miracles for Propagation of Christianity 282
Evidential Argument: value of Testimony: Fact, Matter of Testimony; Miracle, of Opinion - - - - - 283
Antecedent Credibility: Hume's Argument: Conclusion not dependent on Experience, but on Reason and cosmical Order - - - - - - - - - - 284

Page

Different Grounds of Belief in different Ages: Philosophical Theism does not support Interruption of Nature: Scepticism, ancient and modern: Miracles, as parts of a greater System: various Opinions - - - - - - - 296

ESSAY III. — ON THE RATIONALISTIC AND OTHER THEORIES OF MIRACLES.

§ I. — INTRODUCTION: GENERAL NATURE AND OBJECT OF RATIONALISTIC THEORIES OF MIRACLES.

Difficulties of the *Historical* Criticism of the Gospels - 309
Divines admit *some* Explanations from Natural Causes, or from Critical Considerations - - - - - - - 314

§ II. — NATURALISTIC THEORY OF PAULUS AND OTHERS.

Explanation of Miracles from Natural Causes, and as extraordinary Events misapprehended or exaggerated - 319
Particular Instances in the New Testament Miracles - - 322
General Remarks: many improbable Coincidences supposed unsatisfactory as a complete Explanation - - - 332

§ III. — THE MYTHIC THEORY OF STRAUSS.

Woolston's Speculations acknowledged by Strauss - - 334
Strauss's preliminary View of the Nature and Origin of Myths: his Application of it to the Gospels: Critical Examination of the Origin and Composition of the Narratives: their Discrepancies and fragmentary Character - 337
Instances of the Mythic Interpretation applied in Detail - 343
Remarks on this Theory: Objection from the early Belief in the Reality of the Events by Friends and Enemies: Doctrinal Object and Application admitted: Strauss's Doctrinal View mystical and unsatisfactory - - - - - 345

§ iv. — The Subjective Theory of Feuerbach.

Page

His general Theory of Religion, as derived solely from Internal Conceptions mistaken for Outward Realities: Hence the Belief in Miracles derived from Internal Impressions 353

Difficulty in applying such an Explanation to particular Cases - - - - - - - - - - - 356

§ v. — The Psychological Theory of Ewald.

So named as descriptive of what seems the Author's Principle: Meaning obscure; but seems to imply Power of Mind or Spirit over Matter; in some Parts naturalistic - 358

§ vi. — The Doctrinal Theory of Neander.

Miracles regarded as subordinate Accompaniments of a Supernatural System of Revelation - - - - - - 364

In some Respects apparently Mythical Sense allowed: Miracles as Objects of Faith; relative to the Parties addressed: Subjective: General Remarks: much left unexplained - 366

Conclusion.

None of the Theories satisfactory as complete Solutions; Each in some Respects worthy of Consideration: Appeal to Broad Principles; Uniformity of Nature; Faith in Christian Doctrine - - - - - - - - - - 373

ESSAY IV. — THEOLOGICAL VIEWS OF MIRACLES.

§ i. — Miracles of the Church, Modern and Ancient.

Disposition of some to regard extraordinary Events as Miracles - - - - - - - - - - - - 381

Page
Case of an alleged modern Miracle: Grounds of Belief and Disbelief - - - - - - - - - 384
The Miracles of Port Royal - - - - - - - 394
The Miracles of Ecclesiastical History: Arguments for and against, taken up entirely on Doctrinal Grounds - - 395
Argument from Parallelism with Scripture Miracles tells either way - - - - - - - - - 424

§ II. — General Argument from the Belief in Miracles.

Formal Arguments of the old evidential Schools now discredited by Orthodox Divines: Internal Evidence and Spiritual Conviction upheld - - - - - - - 429
This accords with Representations of the New Testament; and with the common Grounds of Belief popularly admitted: Miracles regarded as *Objects* not *Evidences* of Faith 434

CONCLUSION.

General Relations of Christian Faith to Physical Truth.

Physical Language of Scripture conformed to the Ideas of the Age: some Instances considered: do not affect essential Doctrines - - - - - - - - - 441
Great Miracles merged in Mysteries of Faith; spiritualised by the Apostles; and in the Teaching of the Church - 455

APPENDIX.

Page

I. On Recent Views of Organic Creation: Remarks on Dr. Bronn's Work - - - - - - - - 464
II. On Materialism: Remarks on a Passage in the Edinburgh Review - - - - - - - - - 469
III. On Grounds of Belief: Extract from Professor Faraday - - - - - - - - - - 472
IV. Note on Bp. Berkeley's Theory of Vision - - - 473
V. Theory of Life: Mr. Hinton - - - - - - 474
VI. On Causation: Extract from Mr. Buckle, with Remarks - - - - - - - - - - 475
VII. Science and Creeds: Ancient *Physical* Belief - - 477
VIII. Documentary Evidence of the New Testament: brief Sketch of Critical Arguments, and recent Opinions 478

ERRATUM.

Page 398, line 9, *for* "awarded," *read* "recorded."

INTRODUCTION

TO

THE THIRD SERIES OF ESSAYS.

CONNECTION OF THE PRESENT WITH FORMER ARGUMENTS.

THE ORDER OF NATURE.

INTRODUCTION.

Object of former Essays.

THE several arguments pursued in my first series of Essays under the title of "The Unity of Worlds and of Nature," were mainly directed to the one great object of illustrating the true fundamental principles of the inductive philosophy, taking up the leading idea of the unity of system pervading all nature, and this especially in relation to its bearing on the connection between that philosophy and theological views. Special reference was made to several points in which physical science and religious belief seem, as it were, brought into peculiar contact with each other; the first and chief of which — the basis indeed of all further ideas of the kind —

is the grand inference of natural theology as derived from the extended study of the laws of the material universe.

But besides this main topic, several others of scarcely less moment and importance, dependent upon it, were adverted to, especially referring to cases in which the deductions of science seemed to have any particular bearing on the doctrines or the truth of revelation. Though some of these topics were more or less fully treated, others were rather glanced at than discussed; and some of the main difficulties confessedly involved, were avowedly reserved for more full consideration than the limits of those Essays would admit.

The examination of one of the questions thus defectively left, involving purely *theological* considerations, was the object of the *second* series of Essays, under the title of "Christianity without Judaism," or the vindication of the independence of Christianity, necessitated by the positive contradiction given to the cosmogony so essential to the Old Testament system by geological researches. In a word, the facts of geology necessarily contravene the *historical* character of a very essential portion of the Old Testament:

not a mere accessory or incidental statement or expression, but a point vitally wound up with its whole tenor — the six days' work and the seventh day's rest. How then is the veracity of revelation altogether to be vindicated? This is the question discussed in my second series, and the answer is, that neither this nor any such contradiction to the *Old* Testament, as being a system of peculiar adaptations, can affect the *New*. The Gospel is essentially independent of the Law in general, and especially in respect to the particular point referred to. This, of course, turns upon considerations purely critical and theological; and being opposed to some prevalent opinions requires to be discussed at length.

Connected with the same primary question, other topics of a more peculiarly philosophical kind remain for fuller discussion, and will form the subject of the present *third* series. The influence of science, arising both from the nature of its general principles and the particular truths it elicits, remains to be considered in reference to the grounds of religious belief, with a more special regard to certain points in which their respective claims may seem to stand in some degree opposed to each other.

Influence of science on theology.

The great truth of the invariable order of nature, which was before dwelt upon as the substantial basis of all rational views of natural theology, will be found to possess a further bearing on the reception of the higher disclosures of revelation; and we shall recognise a close connection between the extent to which researches into nature are pursued, and the degree in which the conclusions thus established may react on some of the inferences of theology, and modify the view we must take of some points of an external and accessory kind; and the actual *evidence*, and thence in some measure the *interpretation*, of theological truth will thus take a different form at different periods, according to the existing character and state of advance of physical knowledge.

But besides these more direct results, in a wider sense, physical philosophy, as cultivated in any particular age, will exercise an indirect and powerful influence over the general tone of thought and reasoning of that age, which will extend itself to other subjects not immediately physical. Thus in both ways the state of natural science will manifest effects directly and indirectly bearing on that of theology; and it becomes a highly interesting and important subject

of inquiry to trace such influence in its progress, and to follow the steps by which, from the contemplation of nature, advancing intelligence has been led to the more or less just appreciation of those higher topics which, however distinct in their nature, are often found connected with physical ideas.

Historical view proposed.

It will thus be desirable, as being eminently illustrative of the wider argument, to take a brief retrospective *historical* glance at the progress of physical science in former ages, so as to follow, however imperfectly, some general traces of its connection with natural theology, and, through that connection, its influence on the grounds of religious belief and on theology in general, whether in the way of confirmation or of objection, of extension or of limitation; after which we shall be in a condition to discuss more satisfactorily the general arguments involved.

ESSAY I.

HISTORICAL SKETCH

OF THE

PROGRESS OF PHYSICAL SCIENCE AS BEARING ON RELIGIOUS BELIEF.

HISTORICAL SKETCH, ETC.

§ I.—THE PHYSICAL PHILOSOPHY OF THE ANCIENTS AND OF THE MIDDLE AGES.

§ II.—THE EPOCH OF COPERNICUS, GALILEO, AND BACON.

§ III.—THE PERIOD FROM NEWTON TO LAPLACE.

§ IV.—THE PERIOD FROM LAPLACE TO THE PRESENT TIMES.

CONCLUSION.

ESSAY I.

HISTORICAL SKETCH OF THE PROGRESS OF PHYSICAL SCIENCE AS BEARING ON RELIGIOUS BELIEF.

§ I.—THE PHYSICAL PHILOSOPHY OF THE ANCIENTS AND OF THE MIDDLE AGES.

Early progress of scientific ideas.

THE first origin and early progress of all science is involved in obscurity; yet, on general grounds, it may be considered evident that the necessary arts of life must, from the nature of the case, precede all scientific speculation or inquiry; and, again, when such speculation does begin, it seems an equally natural result that, in the infancy of intellectual progress, *imagination* should largely predominate, and that science should not at first take the *strictest* or simplest form of inquiry into facts, but rather begin with widely extended yet *visionary* contemplation, out of which more sober and exact conclusions are only by degrees evolved. Men must live and act

before they speculate; and when they speculate they feel and fancy before they investigate and measure—they wonder and imagine before they reason and analyse.

Mystical origin of science.

If we look at the case historically, in its first stage, as far back as we can trace it, early science is always found involved in a large admixture of *mysticism*, closely combined with religious or superstitious impressions on the one hand, and with not less visionary philosophic theories on the other.

The rudest observations of great natural phenomena were associated with those feelings of awe and wonder which easily accorded with a belief in supernatural influences; and some of the earliest indications of this spirit were seen in the ideas of astrology, and of omens and portents supposed to be connected with human affairs; while the phenomena themselves, not reduced to laws, were ascribed to arbitrary and often conflicting supernatural agencies.

But the feelings of awe and wonder first inspired by the contemplation of nature, especially in its grander aspects and phenomena, gave way by degrees to more familiar inquiry; and thus out of mysticism we trace the first rise of philosophy, as

described by Aristotle[1]: *διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσόφειν.*

With the varied phenomena of nature constantly before their eyes, it was impossible that men should not gradually, and by the continued use of their senses, exercised on objects around them, arrive at some conceptions of physical truth, however imperfect. Such knowledge, slowly accumulated, by degrees assumed some definite shape, and ideas properly belonging to *science* were, in some measure, extricated from the mass of extraneous, if not prejudicial, adjuncts in which they were involved; and thus, in some isolated departments, in early times, a few physical facts, and even simple laws and general truths, were recognised, amid the multitude of speculations and imaginary theories in which man's untaught fancy luxuriated.

No distinction between fact and theory.

But such ideas, at the best, were unconnected among themselves, and were mixed up with an incongruous mass of mystical conceits, and hardly intelligible abstractions. There was scarcely any definite line of demarcation drawn between fanciful hypothesis

[1] Aristot. "Metaph." I. 12.

and physical reality, between fiction and fact. Now and then a high physical principle or a just and sound analogy was thrown out, as it were by accident, or at least without any apparent sequence or connection with other truths, and amidst a mass of absurdity and error.

Instances.

Thus, for example, Pythagoras had asserted not only the heliocentric planetary system, but even that comets resemble planets of longer period. But, instead of advancing in later ages, these sound and just analogies were overpowered by the increasing subtleties of the mere technical schools,—when Aristotle taught that comets were mere terrestrial meteors, and refused them a place among the objects of astronomy; when others held that the earth was a flat cylinder, and the sun the size of the Peloponnesus, and when the solar system gave way before the complex geocentric scheme of the Peripatetics, and a multitude of antagonistic powers, sympathies, and antipathies, were assigned as the causes of physical phenomena.

Anaxagoras taught just notions of the celestial dynamics when he affirmed that the heavenly bodies would fall if not prevented by their rapid motion,

"like a stone whirled round with a string;" — Democritus argued the infinity of the sidereal universe, or it would collapse into a point; — Aristarchus of Samos described the sun, with his attendant planets, as a star among innumerable stars; — yet these sublime and just views were soon lost sight of in the crystalline spheres and firmaments of the Ptolemaists, and the distinctions between terrestrial and celestial motions of the Peripatetics.

Fragmentary knowledge.

Such was the absence of sequence and connection which characterises the history of the ancient speculations, and which, in truth, results almost inevitably from the nature of the principles on which they were conducted.

The physical science of the ancients was chiefly a multitude of discordant gratuitous theories, amid which we discern, here and there, some disconnected individual investigations of immense power and beauty; such as their geometry, their geometrical optics, their principles of the mechanical powers, and a few elementary applications of them. But when we look beyond these, we perceive that in such a philosophy there was no continuous progress, no settled order according to which one truth was

No real advance with time.

elicited out of another, no advance from the mere particular to the more general. The earlier views were often better, more sound and comprehensive, than the later. They were, in fact, all more or less conjectural, and, as such, were not dependent upon any steady advance in discovery, or the cooperation of many minds and many hands, but arose entirely out of the spontaneous conceptions of individual intellects, and were thus good or faulty, not with reference to any advance in the age, but only in proportion to the intrinsic ability and power of those individual minds.

Preference of moral to physical speculation.

The Greek philosophers, in an early age, had asserted the dignity of physical inquiry; an ancient astronomer had declared that man was born to study the heavens. But later philosophers were bewildered amid the multiplicity of systems, and thence regarded all inquiry into the world of matter as vain and unworthy, and turned to speculations in the world of mind or spirit as a more congenial and satisfactory field.

And the same idea has been re-echoed in modern times; men have turned from the path of physical and demonstrative certainty to the dubious regions

of moral disputation, and have even denounced the inquiry into nature as presumptuous and irreligious; while they have confidently rushed into metaphysical speculation on topics beyond all human comprehension. Pliny[1] thought Hipparchus impious in making a catalogue of the stars; and an equally preposterous prejudice actuates vulgar minds even in our own days. At a much earlier period, the same spirit of jealousy and hostility against physical investigation was displayed when Anaxagoras was persecuted for showing that an eclipse was nothing but the stoppage of light by the opaque body of the moon or earth, instead of a supernatural miracle, as was then the orthodox creed.

Ancient cosmogonies.

In the earliest stage to which we can trace the ideas of ancient nations, we always find conspicuous a mythological cosmogony. That of the Hindoos is of a most elaborate and abstruse kind, involving the notion of many successive creations and destructions of the world, and in its details offering many striking analogies to systems which have been upheld even in later ages. The Egyptians held a like series of cata-

[1] Nat. Hist. ii. 26.

clysms and renovations. Among the Chinese and Peruvians, the equally marvellous fables of deluges and universal catastrophes seem to refer to later periods, and do not assume so transcendent and sublime a character as those of the Indian cosmogonies.

Plastic powers of nature.

Apart, however, from these visionary fancies and fabulous conceptions of creation, there are on record, even in early times, discoveries of fossil bones, shells, and other remains, which were either ascribed to fancied monsters, or else to the plastic powers of nature indulging in wanton frolics, and mocking human research by forged imitations of real objects.

Among the Greeks, though some mythological ideas of a similar kind were prevalent, yet instances are not wanting of more philosophical views, suggested by actual observation of phenomena — as far as they went — conformable to what modern research has confirmed. Such are some of the speculations upheld by Strabo and others as to the effects of earthquakes, volcanic action, and the like, in the upheaval of strata and other terrestrial changes.

Value of generalisation.

It is only in an advanced state of cultivation that men have been led to acknowledge the preeminent

value and higher character of all science to be in proportion to the degree of *generalisation* to which it has attained; in accordance with the extent of that generalisation do we perceive the vast *combination* of natural laws, all mutually dependent on each other, conspiring towards greater and higher principles; and begin to obtain glimpses of that unity pervading nature which is the true basis of the grand idea of "Cosmos" — the principle of universal and perpetual law, order, harmony, and reason throughout the material universe. Ideas of this tendency were occasionally broached by the ancients amid their manifold speculations — philosophical dreams, which yet, like other dreams, sometimes chanced to prove true.

of os.

Among the ancients, as the physical sciences had hardly advanced, at least to any higher generalisations, as there were even counteracting causes impeding any possibility of its attaining them, so we could not legitimately expect any indications of those higher conclusions just alluded to. Yet, though such conclusions could not strictly follow from existing physical data, we find a similar kind of instinctive anticipation to that noticed in some other instances;

Some ideas of inductive generalisation.

larger ideas occasionally thrown out, and reflections on them sometimes followed up by the ancient philosophers, though altogether hypothetical —happy theoretical conjectures suggested by the spirit of speculation in which they were so fond of indulging. We may perhaps exemplify this in the remarkable declaration of Cicero, so accordant with the real progress of inductive discovery, advancing from artificial systems towards natural principles: — "Opinionum commenta delet dies, naturæ judicia "confirmat;" as well as the very just distinction drawn by Seneca as to the real object of physical inquiry, the search after natural causes as real and permanent, not arbitrary or fortuitous: —"Naturalem "causam quærimus et assiduam, non raram et for-"tuitam."

It may, perhaps, be taken as something like a recognition of an unity in natural causes that several of the ancient schools in their speculative theories resolved all things into one primary element — the Ionic school into water, Anaximenes into air, Heraclitus into fire. But with these speculations there seems to have been usually mixed up some vague notion that these elements were pervaded by a kind

of vital or creative energy; Thales is said to have held that out of water a supreme mind (*νοῦς*) evolved all things. But in general there appears no disposition on the part of the ancient writers to ascribe *creation* to their gods. Hesiod[1] supposes gods as well as men to have sprung from unknown powers of nature, and Diodorus Siculus[2] enumerates the various opinions held as to the origin of the world, in which there is little or no reference to the idea of a creative Deity; but he owns the subject to be one beyond human intelligence.

Idea of Cosmos.

A striking instance of some anticipation of more extended ideas may be found in the very earliest phase of Greek philosophy, when Pythagoras is stated to have introduced the term Κόσμος, in the sense of "the order of the world,"[3] and thus doubt-

[1] Op. et Dies, i. 108. [2] lib. i.

[3] This is distinctly asserted by Plutarch, "De Placitis Philos." ii. 1, and in the Fragments of Philolaus, Stobæus, Eclog. p. 360. 460.

Plato, though he drew a distinction between the celestial world (*οὐρανός*) and the terrestrial, yet seems to apply the term *κόσμος* to the whole; affirming the universe to be a living being with a soul. Κόσμος ζῶον ἔμψυχον.—Timæus, p. 30. B.

Aristotle maintains the same idea of the "order of the world" under the same term; though he divides it into super-lunary and sub-lunary. (Meteor. I. ii. 1, and iii. 13.)

According to Philolaus, some of the ancients divided the universe

less had some distinct perception of the grand idea implied. In this view he was followed, with less distinctness, by Plato and Aristotle. But, at a later period, the treatise "De Mundo" (long attributed to Aristotle) contains a nearer approach to the modern view, defining Cosmos to be "the "connected system of all things — the order and ar- "rangement of the whole preserved under the gods "and by the gods." [1]

In this passage it may be remarked that the reference to divine superintendence is introduced altogether as a *foregone* conclusion, and not at all as an *inference from* the contemplation of the order of the world.

At a much later period, though the writings of

into three regions: the highest and outermost Olympus, the region of fire; the next Cosmos, that of the *invariably* moving planets; the innermost Uranos, that of *variable* nature, between the earth and the moon; while the earth itself was called the "hearth of the universe" (ἑστία τοῦ παντός). (Stobæus, i. p. 488.)

Some other philosophers held separate stellar systems, each of which in itself was called a Cosmos. (Humboldt, note p. 78, transl[n] 1845.)

[1] Κόσμος ἄρα ἐστι σύστημα ἐξ οὐρανου καὶ γῆς — καί τῶν ἐν τούτοις περιεχομένων φυσέων. Λεγεται δὲ ἑτέρως κόσμος, ἡ τῶν ὅλων τάξις καὶ διακόσμησις — ὑπὸ θεῶν τε καὶ διὰ θεῶν φυλαττομένη. (Pseudo-Aristot. de Mundo, c. ii. p. 391.)

Cicero bear witness to a similar appreciation of the idea of order in nature, yet we can only regard it as the expression of a sort of anticipatory vision of that grand physical application to which we can now appropriate it:—"Est enim admirabilis quædam "continuatio, seriesque rerum, ut aliæ ex aliis nexæ, "et omnes inter se aptæ, colligatæque, videantur."[1]

No sound inferences of order.

These speculative ideas, beautiful as they are, were little established on any solid physical basis. From the desultory and scattered character of the ancient discoveries in physical phenomena, none but partial and restricted conceptions of physical causation could be derived. Hence there could be no real or substantial unity of science indicative of unity in nature. When they generalised on causes to the extent of imagining certain powers above nature putting them in action, it was almost a matter of necessity to suppose a number of distinct, independent, and conflicting powers. When they examined organised nature and found structures adapted to purposes, means beautifully fitted to ends, they could not advance beyond isolated cases, or combine those

Final cause as viewed by the ancients.

[1] De Nat Deor. i. 4.

structures in one view with any great laws of unity or symmetry.

But further, in the system of the world in the few instances wherein they could in any degree assign mechanical causes, they always seem to have considered them as conveying the idea of fated necessity, rather than that such indissoluble connection in reason is the very evidence of supreme mind, and this prepossession has remained in full force in men's thoughts even to much later times,—derived no doubt from too exclusive a devotion to the ancient writings, without the corrective of a thorough study of the inductive physical philosophy.

Natural theology of the ancients.

The most remarkable discussions of the ancients, as bearing on what we should now call natural theology (as in the beautiful instance of the Socratic argument recorded by Xenophon[1]), were restricted to obvious instances of the design manifested in the structure of men and animals; and in the further application of such conclusions the points of chief interest were such as bore directly on existing questions, as to worship, and sacrifices, and the influence

[1] Memorab. lib. i. c. 4.

exerted by the gods on nature and on the affairs of men, descending even to the lowest indications by omens, divinations, and the like.[1] Indeed in all their discussions on these subjects we find a large admixture of reference to supernatural influences in physical events; though in some few instances a glimpse of more enlarged contemplations is opened, as for instance in the well known Ciceronian discussions,—where Cleanthes, one of the speakers in the dialogue, is made to sum up under four principal heads all the most material arguments for the existence of the gods; (1.) Indications of Divine prescience given in omens and the like: (2.) The beneficial order of the seasons and fruitfulness of the earth: (3.) Marvels and signs in nature and portents above nature; and (4.) (as he admits "eamque vel maximam") the order and regularity of the heavenly motions.[2]

This last admission is certainly remarkable, especially as compared with the former points, and in the existing state of physical knowledge. But upon the whole, even in these most favourable instances, the

[1] Memorab. lib. i. c. 1; lib. iv. c. 3, &c.

[2] De Nat. Deor. lib. ii. c. 5.

view we obtain of the ancient Theistic argument is such as to impress us strongly with the fidelity of the apostolic description,—*ὡς δεισιδαιμονεστέρους ὑμᾶς θεωρῶ*[1]—"Ye are too superstitious," too much given to the fear of supernatural beings.

Ancient Theistic views.

Herodotus tells us that the ancient Persians ridiculed the Greeks for their gods with human natures, and boasted their nobler worship of the elements; making the heavens their god:—"*τὸν κύκλον πάντα "τοῦ οὐρανοῦ Διὸν καλέοντες.*"[2]

Anaxagoras appears to have recognised one supreme intelligence; but perhaps the only more enlarged and philosophical speculations of this kind in which the ancients indulged, were either those sublime but visionary imaginations which characterise the Platonic mysteries, or else, on the other hand, the doctrine of the "animus mundi" and the pantheistic or atheistic systems with which we are familiar in their fullest development, in the Epicurean materialism, so elaborately and beautifully expounded by Lucretius.

When a supreme deity was acknowledged, it was commonly with little reference to any practical or

[1] Acts xvii. 22.

[2] Herod. i. 131.

moral influence. The Platonists held indeed that God was concerned in the affairs of men; but the Epicureans that he was indifferent to them. The Stoics, we are told, placed Him "*without* the universe, "turning about, like a potter, this mass of matter "from without, the Platonists *within*, abiding, like "a pilot, within that which he directs."[1]

Aristotle appears to deny any external agency in the Divinity[2], and seems to favour Pantheism[3]: an idea more distinctly traced in some parts of Virgil.[4]

Relations of early Christianity to the prevalent philosophy.

The state of philosophy and the degree of reference it had to any views of theology, about the period of the origin of Christianity, will be apparent were it only from what has been observed above. It is also well known that in more immediate relation to Christianity itself, that modification of Platonism which was prevalent among the Hellenistic Jews, became the parent of the mystical system of Gnosticism: and in the writings of Philo it made

[1] Tertullian, "Apologia," § 47.

[2] Polit. vii. 3.

[3] Eth. Nic. vii. 8.

[4] As (*e.g.*) in the passages,—

"Partem divinæ mentis," &c.—*Georg.* iv. 220.

. . . "Totamque infusa per artus
Mens agitat molem."—*Æn.* vi. 726.

the nearest approach to some of those ideas afterwards developed under other forms in the Christian Church.

Influence of Neo-Platonism.

But while some of the ideas, or at any rate the language of that Platonism became incorporated with the doctrines of the Gospel, its form of Gnostic extravagance was strenuously opposed and condemned by the Apostle Paul, who expressly announced the spiritual doctrines he taught as essentially independent of all human reason or philosophy.[1]

In the second century we find a kind of eclecticism (mainly derived from Platonism) mixed up with the Christian doctrine by some of its leading teachers, especially in the Alexandrian school; among whom Clement of that place was one of the most eminent. While somewhat later another modification of a similar philosophy, proposed by Ammonius, was embraced by the learned Origen, and obtained a great influence over the theology of the Church.

A more rigid party, however, strenuously opposed these innovations, and contended for the original purity of the faith. These disputes are represented

[1] As, *e.g.* 1 Cor. i. 21; Col. ii. 18, &c.

by some ecclesiastical historians as the first indication of an antagonism between the principles of reason and of faith.[1]

The conversion of many of the professed "philosophers" to the Christian faith, about the second century, of whom Justin Martyr was the most illustrious instance, was much boasted of by many of the ecclesiastical writers, but others viewed it rather with different feelings, as productive of a tendency to corrupt the simplicity of the Gospel doctrines with the admixture of philosophical speculations alien (at best) from their real character.

Of this tenor is the complaint of an author quoted by Eusebius against these philosophical converts:— "They venture to alter the sacred Scriptures, to "desert the old rule of faith, and to mould their "opinions according to the sophistical precepts of "logic. The knowledge of the Church is deserted "for that of geometry, and they lose sight of heaven "while they are employed in measuring the earth. "Euclid is perpetually in their hands; Aristotle and "Theophrastus are their admiration; and they ex-

[1] See Mosheim, "Ecc. Hist." i. 175.

"press great veneration for the works of Galen. "They fall into error from the use of the arts and "sciences of unbelievers, and corrupt the simplicity "of the Gospel by the subtleties of human reason."[1]

Of the heathen philosophy of this period, it would appear that the prevalent theological aspect was that of Pantheism, as we learn from Augustine[2], who had himself been originally instructed in its schools.

On the other hand, the polemical attacks and argumentative cavils of this so-called philosophy against the Christian doctrine, however empty and sophistical, were in those ages regarded as the most formidable assaults which the Christian cause had to sustain. Such were those of Celsus, Hierocles, the Emperor Julian, and others. Some again more artfully professed to reconcile the Christian tenets with the ancient mythologies, and thus sought to undermine the true doctrine by corrupting it.

System of Aristotle.

But notwithstanding the vague and desultory

[1] Eusebius, "Ecc. Hist." lib. v. c. 28. This is the version given by Mosheim (*ubi supra*); but a reference to the original will shew that this is a *very free* translation, though to the same purport. It is also given by Mosheim as from Eusebius himself.

[2] Confessions, v. 10.

character of much of the ancient philosophy, it yet gave rise to some few well compacted systems, framed necessarily on abstract mental ideas, and not on any true generalisation, but which were believed to include not merely the whole compass of *moral*, but even of *physical*, truth. And of those systems (without dwelling on some others which have retained a partial acceptance), that of Aristotle stands preeminent in the name which it acquired even in ancient times, and still more in the authority which it obtained, and continued to exercise, eventually in uncontrolled supremacy, through the long series of the middle ages. Yet one of its main characteristics in the form it then assumed, was a total forgetfulness of that inductive spirit which Aristotle himself so distinctly insisted on, and the substitution of a system of deductive reasoning supposed equally applicable to all subjects.

Predominant in the middle ages.

But the really distinguishing feature of the mediæval Peripatetic philosophy was not merely its preference for the *deductive* method to the neglect of the *inductive*, but that the deductions themselves were all of a kind not relating to *realities* but to *words*, turning, not on the connection and depend-

Disputes verbal.

ence of substantial *truths*, but on artificial combination of *terms;* and by mere verbal quibbles of the most puerile kind men deceived one another, and often themselves, into the belief that they were making real advances in knowledge, or at any rate giving convincing proofs and demonstrations of true propositions, and refuting erroneous and heretical opinions.

Examples.

To take an instance of an Aristotelian physical argument;—gravity or weight is the cause of the fall of bodies to the earth; *therefore,* the greater their weight the more rapidly they will fall. Again: Terrestrial motions are corrupt, celestial perfect; *therefore,* a body in motion on the earth's surface soon comes to rest, but the heavenly bodies move on for ever. The former, a false conclusion from true premises; the latter, a true conclusion from false premises; but both merely *verbal.*

Thus technicalities usurping the name and functions of philosophic reason were permitted to assume the supremacy, and imagined capable of reducing all nature into obedient conformity to their dogmas.

Ptolemaic astronomy.

The actual condition of knowledge under the dominion of the scholastic philosophy, was restricted

to a very narrow range. The Ptolemaic astronomy was, perhaps, the best and most advanced portion of the system, since it undeniably afforded the means of actually computing the planetary motions within such limits of accuracy as the age demanded; and it professed nothing beyond giving a sort of mathematical representation of those motions which it assigned to the heavenly bodies, as being carried round in their crystalline spheres by the primum mobile; beyond this, it was neither attempted, nor would it have been right, to inquire into the causes of those motions.

Astrology

In speaking of the astronomy of the middle ages, it must not be overlooked in how large a degree it was upheld and cultivated, in reference to its application to the more noble and important uses of astrology. The nature and pretensions of those two branches of science were, indeed, by no means well discriminated, even by philosophical writers; and the patronage which the former received at the hands of most of the sovereigns of those times, arose almost entirely from their sagacious appreciation of its utility in relation to the latter more valuable art. Intimately connected with this sublime principle of

the dominion of the stars over the affairs of men, was the view entertained of comets as the omens and harbingers of the fate of kings and nations.

General physics.

In other branches, and the study of nature generally, a few scholastic dicta and dogmas, derived from metaphysical abstractions, supplied the place of all more extended inquiries of a physical kind, which, it was held, were at best uncertain, which might be indefinitely dangerous, and which were, therefore, to be prohibited altogether, unless carried on strictly in accordance and subservience to the rules and principles authoritatively laid down. Such formulas and technicalities must of course suffice for lower truths, since they had been applied with such exalted sanction as the interpreters of the highest doctrines of the Church.

The schoolmen argued in familiar syllogisms on the most awful mysteries of heavenly things; and in ages when the light of discovery was too feeble to display any glimpse of the real system of nature, the human intellect was deemed powerful enough to penetrate far and wide into the regions beyond nature.

Influence on natural theology.

In such a state of physical and cosmical science,

it is clear there could be nothing resembling what would now be regarded as a philosophical *natural theology*, derived from the evidences of order and arrangement in nature.

Under a more mystical point of view, however, some speculations were put forth in the period in question, among which we may find occasional indications of somewhat more worthy conceptions.

Writings of Sebonde.

Perhaps the earliest modern writer of a professed treatise on natural theology was Raimond de Sebonde[1], professor of medicine at Barcelona, in the early part of the fifteenth century. In his "Theologia Naturalis, sive Liber Creaturarum," he professes to develope truths latent in nature, which may disclose to man both the perfections of God and the right clue to the understanding of Scripture. He dwells much on the impossibility of misinterpreting the book of nature, while that of revelation is open to every kind of false comment. Hence the certainty with which we may rely on the former as the key to the latter. The application of the method proposed is found in a kind of analogy between na-

[1] See Hallam's "Lit. of Europe," i. 192.

tural and divine things, followed out in a somewhat fanciful and mystic style. In fact, not only in those ages, but for long afterwards, "natural theology" had but a vague meaning, and, at the best, consisted in *illustrations* and *confirmations* from the works of nature, in support of the belief in the existence and perfections of the Deity already *assumed* and presupposed: not in the discussion of the question,—to what legitimate *inferences* of this kind does the independent examination of nature rightly conduct us? The idea of *creation*, in particular, was always assumed in the first instance; the argument was solely as to the perfection of the Creator. It was never inquired, what is the evidence of the origin of existing things; unless, indeed, the interminable metaphysical disputations of those ages for and against the thesis of the eternity of the world may come under that designation.

Aristotelian philosophy adopted by the Church.

The dominion of the Aristotelian philosophy over the European schools during the middle ages was complete, and was upheld with the full authority of the Church, with the manifest motive, that as it professed to systematise all knowledge, and to confer a deductive power as the sole means of arriving at

truth, so by this means all knowledge was restricted within prescribed limits; no additions could be made to a system already perfect and complete; all fresh discovery was impossible, all original remark and inquiry prohibited, and the dominion of the ecclesiastical dogmas (all defensible and deducible on the scholastic principle) was unalterably secured.

Mediæval scepticism.

Under the outward profession of submission to the decrees of the Church and devotion to the Aristotelian philosophy in the middle ages, so often vaunted as peculiarly ages of faith, more deeply inquiring writers[1] have, however, traced no slight indications of a very prevalent spirit of scepticism in religion, not unnaturally arising out of the disputatious character of the school theology. But it is worthy of remark, that this scepticism was for the most part of a *metaphysical* cast, and little connected with any *physical* ideas. Those who might secretly deride the metaphysical mysteries of which they made such a parade in their professed formularies, yet sank in the lowest prostration before physical prodigies and supernatural influences. Yet some few instances

[1] See Hallam's "Lit. of Europe," i. 190.

were not wanting of minds superior even to *these* prejudices in the darkest periods; among whom Roger Bacon was the most conspicuous. His *physical* innovations were chiefly those which brought down on him the animosity of the ecclesiastical authorities.

The Peripatetic doctrine, as embodied in the dogmas of the schoolmen, even to its physical details, was closely mixed up with the mediæval theology. None of its subtleties could be disregarded without endangering the doctrines of the Church. The theology and the physics of the age formed a closely compacted system. No one point, however apparently insignificant, could be displaced from its position without perilling the stability of the whole.[1] Hence the tenacity with which the ecclesiastics clung to every proposition of the scholastic physics. Their whole creed was in jeopardy if substance and accident, occult qualities, the essential perfection of celestial phenomena, and the corruption of terrestrial, were called in question.

We may cite, as a curious illustrative instance,

[1] On this point see Bp. Hampden, "Bampton Lectures," Oxford, 1833, pp. 191, 334.

the disputes sometimes raised in those times, as to the figure of the earth, and the existence of antipodes.

Lactantius argued elaborately on the absurdity of supposing the possibility of human beings so situated; Augustine denied their existence as irreconcilable with Scripture; and Boniface, Archbishop of Metz, placed such beings out of the pale of salvation.[1]

Collision of science with theology.

The consequences of this alliance, or rather misalliance, of religion with the philosophical system of the day, such as it was, were necessarily the abuse and perversion of both. A false philosophy gave support to a corrupt religion; and the first refutation of the philosophical errors, and the gradual introduction of better views of the natural world, could not but be the occasion of a collision between science and theology; just as the most elementary instruction in geography dispels from the mind of the Hindoo the ideas of the seven oceans and the seven continents surrounding India, and with them discredits the whole authority of the sacred books of the Brahmins.

[1] Whewell, "Hist. of Ind. Sciences," i. 254. 256.

§ II. — THE EPOCH OF COPERNICUS, GALILEO, AND BACON.

Commencement of modern science.

ON the first dawn of what is commonly called the revival of letters, after the *retrograde* period of the dark ages, but which may be more properly designated as the first *commencement* of civilisation in, at least, northern and western Europe, science had evinced some signs of vitality, and even promising symptoms of advance, while yet under the dominion of the Aristotelian schools.

The mathematical literature of the ancients was, perhaps, the first department cultivated; and this, from the nature of the subject, could hardly excite much suspicion or opposition. It was, however, the necessary precursor of the more dangerous innovations which shortly followed in its train in the physical branches.

System of Copernicus.

The theory of Copernicus (1543) is a splendid monument of the power of simple analogical conjecture, when its course is in happy accordance with the great principles of nature, to anticipate what the

labours of centuries of observation have been employed in confirming, and transcendent mathematical skill in demonstrating. But its simplicity and unity are the characteristics which peculiarly mark it out as connected with those higher contemplations to which we are now referring. It opened the door to the conception of one common cause of the planetary motions, of one universal principle of order and arrangement pervading the system; — the first real glimpse obtained of the true Cosmos.

Kepler.

Within a century, this bold, if not wholly original, conception received its great corroboration and extension in the grand discovery of the three laws of planetary motion by Kepler, based on the accurate observations of Tycho (1609—1618) and the mechanical and astronomical discoveries of Galileo, which followed in rapid succession with the invention of the telescope, to verify and extend the predictions of Copernicus.

Verbal disputes.

We have before noticed the extent to which the *verbal* spirit of the Peripatetic logic had fixed itself in the intellect of the 15th and 16th centuries: so deeply had it taken root that we find the very same style of argument sometimes adopted by the

defenders as well as the assailants of the new doctrines.

Thus, Nicolas of Cusa argued against the central position and fixity of the earth that "since there is no "circumference to the system there can be no centre." And in the same strain, on the other side, the Sieur de Beaulieu affirmed it to be a proposition absurd in geometry as it is against faith and reason to make the circumference of a circle fixed while the centre is moveable.

We cannot, however, be surprised at the slow progress made by such novel ideas even among the more educated classes. The new theory seemed to contradict the evidence of the senses; and as an eloquent writer has observed, "the glorious de-"lusion of the rising and setting sun could not be "overcome."[1] All impressions, associations, and prejudices were arrayed against the new doctrine, which only the few were even competent to understand. In the disputes which arose as to the Copernican theory, and still more extensively, half a century

[1] Mr. Everett's Address on the Opening of Albany Observatory, U. S., 1856, p. 97.

later, in those which the discoveries of Galileo called forth, we trace the first decisive conflict of the positive physical philosophy with the scholastic metaphysical spirit of the age; and in the more serious hostility and persecution which it encountered from the ecclesiastical authorities, we see the same antagonism with the erroneous theological principles then maintained.

Opposition to the discoveries of Galileo.

These events form, perhaps, the first great epoch where we may contemplate the real influence which the advance of physical discovery was beginning to exercise on subjects and opinions, which, though of a different kind, could not fail to be materially affected by the general movement.

The influence of the metaphysical forms of reasoning, in those times adopted even in physical questions, directly cooperated with the theological spirit of the age, in that they both tended to involve the subject in *mystery*, which it is the distinguishing character of the inductive principle to clear away.

Philosophical and theological mysticism.

Thus, the single experimental fact exhibited by Galileo, — so utterly confounding to the Aristotelians, as by necessary consequence it impugned

their entire system, — that weights of ten pounds and of one fell from the top of the tower at Pisa in exactly the same time; and the simple reason that each of the ten must fall in exactly the same time, whether united in one mass or falling singly, — however obvious in itself, — was highly important for dispelling the mysticising spirit which then involved and obscured physical truth equally whether it arose from a metaphysical or from a theological source.

Science divested of mystery.

By this and other simple experiments, Galileo divested the laws of mechanics of the obscurity and confusion with which the Peripatetic system had invested them, and prepared the way for the novel and startling doctrine that the same laws of motion would apply to bodies in the heavens as to those on the earth.

After the investigation of the simpler mechanical powers, from the date of the discoveries of Archimedes, eighteen centuries elapsed before the solution of the problem of the inclined plane was effected by Stevinus: and the great algebraist Cardan could not conceive the composition of forces: so entirely were the minds of men incapacitated by confused

metaphysical notions, which mystified the plainest truths.

Slow advance of inductive principles.

It was thus long before the simple philosophical principles announced by Galileo obtained acceptance. Even Kepler did not acknowledge the sufficiency of the law of inertia to preserve the motions of the planets; and imagined animal forces or supernatural agency for the purpose. In other words, in accordance with his age, he did not apprehend the simple proposition that a body in motion must go on till its motion is stopped or altered; and whatever stops or alters it is a new force.

The followers of Copernicus long felt a difficulty as to the preservation of the parallelism of the earth's axis, and imagined three distinct motions impressed upon it, orbital, rotatory, axial: not understanding that the third is a necessary part and consequence of the second.

The Peripatetic dogma was that a body could only be moved by something *in contact* with it. They had not attained the abstract notion of free motion retained *after* impulse. Hence the main difficulty of the Copernican system to their minds. It was on this ground that the Ptolemaists could only conceive

the planets as being *carried* round their orbits by the motion of the solid crystalline spheres, like the hands of a clock; just as even at the present day we have heard of some who fancy this to be the case with the moon. Nothing was more difficult at first than to accept the simpler idea of free motion under the influence of cosmical forces; or to appreciate the analogy of *all* the celestial motions, as being of the same kind, or the connection of impulsive with rotatory force.

Such instances are important, as they point to the necessity for clearing the subject of all obscurity of ideas whether of a metaphysical or supernatural kind; if we would adhere to the simplicity of nature, and above all, of seizing upon just analogy as the true key to the unity of principle and harmony of causation pervading the whole.

Theological persecution.

The persecution of Galileo has been oftener declaimed against than fully reflected on. Galileo maintained the positions of the advancing inductive philosophy, on the grounds of demonstration and experiment; but beyond the strict limits of either, he reasoned and generalised on the broad basis of sound analogy in a manner utterly subversive of the re-

ceived Aristotelian dogmas, which, at all events, had no better ground to stand upon, without any regard to ulterior consequences or existing prejudices. He boldly proclaimed the most unpalatable truths: he asserted the motion of the earth round the sun, degrading it from its high central supremacy to the humble position of a very secondary member of a system of many tributary worlds. He affirmed its rotation on its axis, thus destroying the notion of up and down in the universe, of a heaven *above*, or a hades *beneath;* in both propositions directly contradicting numerous passages of Scripture and the established creed of the Church, besides maintaining many minor doctrines negativing points of the scholastic philosophy, which had become incorporated with the ecclesiastical system, and the denial of which perilled the most sacred dogmas. And in the mechanical and physical points, as well as by the aid of his telescope, he aggravated the matter by urging, not vague speculations, but unassailable facts.

Heresies of Galileo.

At all this, the spirit of orthodoxy necessarily took alarm. Some of its most favourite tenets and cherished pretensions were directly assailed. The words of Scripture and the decrees of the infallible Church

were equally set at nought. The earth was displaced from its proud position as the "central hearth" of the world, which even pagan philosophers had assigned to it; and still more, it was in great danger of losing the higher title demanded for it as the seat of moral supremacy, the sole centre and fountain of spiritual blessing in the whole universe.

These and other not less heretical positions Galileo had openly proclaimed and defended, in defiance of the authority of the Church and to the disparagement and subversion of its claims. But he did more; by questioning one part he opened the door to questioning others; he unsettled men's minds and sowed the seed of future unknown heresies, whose evil fruits might be beyond calculation.

That he was subjected to the power of the Inquisition, and escaped worse consequences only by a forced nominal submission and recantation, is then neither to be wondered at nor to be regarded as an isolated case of the ignorance and barbarism of the age, or of the tyranny of the Roman Church resenting an attack on its particular assumptions. It is simply the true exemplification and type of the antagonism of all arbitrary religious systems,

Case of Galileo not peculiar.

strengthening themselves upon error and invested with power, against every successive advance in philosophical discovery and enlightenment of the public mind: — against a progress which the upholders of such systems with good reason dread as dangerous to their assumptions. It is but a significant instance of the hostility which must always result, while either established priesthoods, or the more independent prophets of fanaticism and expositors of popular prejudice, continue to ally themselves and their cause with darkness and ignorance rather than with light and knowledge, to associate religious truth with physical error, and thus expose the doctrines of Christianity to the reproach of being an appeal rather to the blindness and infirmity, than to the information and higher sense of mankind; tacitly confessing that it is unable to stand the test of advancing inquiry, rather than seeking to identify it with all that tends to enlighten, to elevate, and to benefit the human race.

The question has been discussed with some curiosity, why Copernicus was not subjected to the same persecution as Galileo? and reasons have been found by some writers in the comparatively abstract nature of his speculations, the calm tone in which he pro-

posed them, his own high position in the Church, his deference to those in authority, and the like considerations. But a truer solution probably may be found in the fact that the first copy of his work was only laid before him in his last illness, and nature did but forestall the persecutors.

Attempts at compromise.

The glosses of Foscarinus to torture the text of Scripture into accordance with the fact of the earth's motion were as empty as ineffectual, and the retrograde movement of Tycho (even though a Protestant) was simply an absurd renunciation of philosophical truth from a desire to conciliate prejudices, which after all never will be nor can be conciliated. Like all such compromises, it satisfied neither party, and was speedily consigned to oblivion. It is only worth alluding to in connection with the first-mentioned scheme, as both were the very counterparts, and ought to have been the warning, of the similar attempts of those who, down to the present day, are continually aiming at the very same thing as to the other parts of science which equally contradict the expressions of Scripture.

Remains of mysticism.

The mysticism of *numbers* was a superstition which had infected philosophy from the days of

Pythagoras. Galileo's announcement of the satellites of Jupiter was denied, because it would invade the sacredness of the number 7, which hitherto included the planets. But at a much later period even Huyghens, when he had discovered one satellite of Saturn, declared the system complete, because 6 primary and 6 secondary planets made up the perfect number 12. These are curious exemplifications of the tendency of the human mind to repose on false analogies, and speculate on grounds utterly remote from all real physical conceptions.

Philosophy of Montaigne.

Some light is thrown on the state both of philosophy and of religious belief about the end of the sixteenth century, in the instance of one of the most brilliant and enlightened writers of the period, by the essays of Montaigne (1580); who, though professedly a moralist, yet in several places, and especially in his celebrated defence of Sebonde (from which, as Mr. Hallam observes, that writer is chiefly remembered), wanders far from his professed subject, into an almost unlimited range of observations on topics of natural history, physiology, and physics, according to the views of his day and the philosophies of the ancients,

with especial reference to the question of the extent of human knowledge and the powers of human reason, and not without a bearing on the higher question of religious belief.

Montaigne's *physical* views are of course in accordance with the yet unformed ideas of his age. Thus, as to the system of the world[1], he remarks that the motion of the heavenly bodies round the earth was believed for ages, till some of the ancient philosophers placed the sun immovable in the centre. Of late Copernicus has revived this theory. "But," he asks, "how do we know that a better may not in its turn "be proposed, as one philosophical system has always "been superseded by another?" And he elsewhere argues that all physical science is dependent on the senses, which are, after all, continually liable to deception.[2] He was wholly incompetent to appreciate the grand argument of physical analogy, which mainly determined the conclusions of Copernicus. He nevertheless approves of the belief in a plurality of inhabited worlds[3], arguing from the universal influence of the Divine beneficence.

[1] Montaigne's Essays, vol. ii. p. 386. ed. 1793.
[2] Ibid. ii. 417.
[3] Ibid. ii. 309.

Yet his remarks on our knowledge, or rather ignorance, of the Deity are of the most just and enlightened kind. He complains[1] that human ignorance leads men presumptuously to prescribe to God, and to argue upon his dealings, as if they were those of a man: to call some things miraculous and others natural; to ascribe great events to God[2] as particular interventions, as if smaller events were not so.

In spite of the reasonableness of these views, we yet observe some singular inconsistencies, the exponents of the mind of the age, rather than of the individual. He mentions[3] instances of prodigies from ancient writers, without seeming in the least to discredit them, and dwells in detail upon the ecclesiastical miracles in entire faith, making it wholly a question of testimony and authority, without a thought, or a disposition to entertain one, as to the broad question of the grounds of physical credibility. He appears also to admit the influence of the stars on human affairs, and other omens and predictions.[4]

Montaigne has been pointed out as one of the

[1] Montaigne's Essays, ii. 311.
[2] Ibid. ii. 316.
[3] Ibid. i. 233.
[4] Ibid. ii. 186.

earliest modern examples of philosophical scepticism.[1] This, however, must refer rather to general principles than to avowed views on any particular points of belief in religion, or in the supernatural generally. The state of physical ideas in his time was not such as to induce any extended question on points of that nature. His scepticism was displayed entirely in subjects of other kinds — in moral, literary, and critical questions. He evinces, indeed, a general distrust of the powers of the human intellect[2], and repeatedly enlarges on its weakness, the diversity and uncertainty of all opinions, and the impossibility of arriving at a general consent on any subject. If he allude to some alleged marvels as being merely fortunate coincidences, believed to be miraculous, under the influence of particular circumstances and prepossessions, he yet fully submitted to the dogmas of the Church in all matters of religious belief. In particular, he regarded with undisguised alarm the innovations of Luther and the reformation, as setting up human reason and private judgment, which, by natural con-

[1] See Buckle's "Hist. of Civilization," vol. i. p. 475.

[2] Montaigne's Essays, iii. 390.

sequence, he conceived, could end in nothing but in "an horrible atheism."[1]

Some, indeed, have doubted the sincerity of Montaigne in his professions of belief in all the wonders to which the Church then demanded assent. We have before alluded to the probable existence of much latent scepticism in the middle ages; and it can hardly be questioned that, at all events, the whole religious system of those times, by no very remote consequences, would have a strong tendency towards encouraging a liberalised kind of belief among the thinking class;—when religious doctrines were inseparably mixed up with so much of the marvellous, and when those who reflected at all on the nature and grounds of their faith would, after all, perceive that the Church by no means demanded a *philosophical* conviction, in fact, repudiated the very use of *reason*, and the appeal to *evidence*, and required only an assent of *faith*, a profession of *obedience* to its decrees.

Sceptical tendencies.

The immense multiplication of miracles in the middle ages, or rather the continual appeal to the

[1] Montaigne's Essays, ii. 166.

supernatural implied in the whole religious system then upheld, must naturally have produced the effect of assimilating all such alleged manifestations to each other, and placing them all alike, in general estimation, on the same debased level. Amid innumerable legends all distinction of fact and fiction was lost. No one part could be questioned more than another. And thus, to the apprehension of those at all superior to such indiscriminate credulity, an equally indiscriminate incredulity would be the natural result. The vulgar took all these marvels equally for truth, the more enlightened for fable; and, as being all alike professedly essentials of the faith, the whole belief would be conformed to the same mythical standard.

Reginald Scot: rejection of witchcraft.

The belief in witchcraft, and other kindred superstitions, was almost universal in the sixteenth century.[1] Yet in the minds of a few who could reason,

[1] Of the fearful excesses to which the belief in witchcraft led in the merciless persecution and execution of innumerable persons accused of it, even down to a much later period, some striking exemplifications are given in Mr. R. Chambers's interesting volumes "The Domestic Annals of Scotland," 1858. It has been remarked by another writer, Mr. Dockeray (Egeria, 1854), that this zeal in the exposure of witchcraft seems to have supplied in the Protestant Church the place of the miracles in the Romish — as a triumph over the powers of darkness evincing divine aid.

some doubts were beginning to suggest themselves; and though this was perhaps little connected with any advance of *physical* knowledge, yet it could not but indicate some progress in rational and philosophical ideas of the supremacy of nature. Of this a striking instance is afforded in Reginald Scot, who freely exposed such supernatural pretensions in his "Discovery of Witchcraft,"[1] 1584, wherein he expressly denied to Satan any power of controlling nature. He even appears to have advanced further, and has been interpreted as disposed to call in question or explain away supernatural interposition altogether.

The existence of some degree of scepticism of this kind about the period in question is attested by an allusion of Shakspeare, which is remarkable, considering the general state of opinion and tenor of belief in his day: —

"They say miracles are past, and we have our "philosophical persons, to make modern and familiar, "things supernatural and causeless."[2]

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[1] See Hallam's "Lit. of Europe," ii. 135.

[2] "All's Well," &c., act ii. sc. 3. In this passage nearly all the editions place the comma after "things,"—though the original folio has no stop till the end, — and thus make the sentence contradict itself.

It has been supposed by some that this passage is an allusion to R. Scot: but it may rather be asked, was it not more probably the comprehensive and philosophical genius of the great poet which anticipated forms of speculation as yet undeveloped, though possibly floating on the mind of the age?

Theories of the world.

The various speculative theories of the world which emanated chiefly from Italian writers in the sixteenth century, as those of Cesalpin, Telesio, and Jordano Bruno, can perhaps hardly come under the description of *physical* philosophy, though they each embrace a sort of general scheme of the constitution of nature. Their systems were indeed mostly of a very visionary character. That of Bruno (1580) has perhaps attained most celebrity from the cruel persecution to which it exposed him. He seems to have maintained a doctrine differing little from that of Pantheism. In the more properly physical department he boldly asserted the Copernican system, and upheld a plurality of inhabited worlds; in these respects

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The punctuation here adopted, which restores it to sense, was suggested to me by a friend: but I have since found it in an edition published by Stockdale, 1790, 8vo.

more fully evincing a participation in the progress of a sounder and more substantial philosophy.

If the instances just cited are not examples of the direct advance of *physical* science, yet they at least show the light of the age, such as it was, reflected on physical conceptions, and exhibiting both the character of such conceptions and their relations to religious belief, as then entertained.

We now proceed, however, to a period little advanced in date, but greatly so if measured by scientific progress, — marked by the prophetic declarations of the father of modern inductive philosophy.

Principles of Bacon.

The views of Bacon and the tendency of his philosophy[1] are marked throughout by the elevated nature of their bearing on the grounds of religious belief. The same master mind which dictated the more purely philosophical part of the system, is equally conspicuous in its higher applications, and especially in the expression of conceptions of the sublime inferences from the order of the natural

[1] Advancement of Learning, 1605; De Augmentis, 1623; Novum Organon, 1620.

world. If we sometimes find such expressions conformed to the ideas or, at any rate, the language of the age, — as in the instance of the antithesis of "First" and "Second Causes," referred to as if they were conceptions of the same kind, — yet in other cases we must recognise views not only in advance of his age, but eminently capable of instructing the present.

His opinion of final causes[1], and his often quoted remark,—respecting their barrenness in a scientific sense and regarding them as not neglected, but "wrongly placed,"—if properly attended to, would have anticipated and superseded volumes of modern discussion. While the observation that physical causes do not really withdraw us from the admission of Divine Providence, is a little vitiated in its free and full application, when, instead of regarding them as the very expqnents of that Providence, he talks of the belief in it as the *last resource*, — "ad Deum et Providentiam *confugiant*."[2]

His admired maxim, that a superficial philosophy

[1] De Augmentis, lib. iii. c. 4. p. 186. ed. 1624. [2] Ibid. p. 189.

inclines men to atheism, a deeper to religion[1], applying directly to the very dubious physics and metaphysics prevalent in his age, has yet a practical truth in it for all ages, provided men are led to look for that religion solely in a region beyond that of positive science; not as mixed up with objects of sense and affections of matter, but as existing in the world of spirit.

And when he pursues the subject further towards indicating the class of truths to which natural theology and the use of reason alone are competent to conduct us, he draws some distinctions which are marvellously in advance of the speculations commonly current even in later times. That natural light and the contemplation of the works of creation may teach the existence, but by no means the nature, and still less the will, of the Deity[2]; — that no such investigation can ever bring us to a knowledge of Divine mysteries; — that "the senses perceive natural truth, but are blind "to divine, as the sun lightens the earth, but hides "the stars;" — that natural science is for the de-

[1] De Augmentis, bk. i. p. 9.

[2] Ibid. bk. i. pp. 7, 8.

struction of atheism, not the construction of religion [1]; — that the light of nature may teach us the Divine power and wisdom, but not the Divine image or likeness — are propositions which stand the test of the highest advances of modern philosophy.

In defining the respective provinces of reason and of faith, and urging the importance of keeping them separate, and observing that the neglect of such distinction leads only to the serious injury and perversion alike of philosophy and of religion; — and again, that to derive religion from philosophy is to seek the living among the dead, to derive philosophy from religion to seek the dead among the living [2], — he gives utterance to a lesson which has been reiterated in vain to successive races of Bible philosophers and Scripture cosmogonists.

Bacon regards the study of the book of nature as "the true key to that of revelation," [3] both as opening "the intellect to the true meaning of "Scripture from the general rules of reason and

[1] De Augmentis, bk. iii. c. 2. p. 156.

[2] Ibid. bk. ix. p. 534.

[3] Ibid. bk. i. p. 51.

"language," and as urging the necessity for inquiring into its contents. These are indeed wide and somewhat vague expressions, and such as might at the present day be applied by some to an extent which the author perhaps did not contemplate.

Some lingering influences of dogmatism.

But in some other points we still recognise a predominance of the theological ideas which characterised the age. When, for example, from the very just remark that false religions forbid the use of reason while Christianity encourages it[1], he carries out the use of reason to the *explanation* of Divine mysteries, there appears a little inconsistency with some of his former admirable distinctions; unless indeed we rest in the *ambiguity* of the sentence, and suppose the entire meaning to refer to what he immediately enlarges on — that all revelation is an accommodation of Divine things to our finite apprehensions.

In one passage indeed Bacon appears to carry out the principle of faith to a somewhat strange extreme, when he alleges that "the more irrational (absonum) "and incredible any divine mystery is, the greater

[1] De Augmentis, bk. ix. c. i. p. 529.

"the honour we do to God in believing it, and so "much the more noble is the victory of faith."[1]

Again, admitting that truths of revelation stand entirely on the basis of that authority, and are thus "authypostatæ," he contends that reason is yet competent to deduce conclusions logically from them[2] — the very assumption which gave rise to most of the preposterous dogmas of the scholastic theology. Rather as these truths are not conclusions of reason, so neither can they fairly be made premises for it.

One of the most remarkable indications of prevalent influences may be noticed in the instance of the inquiry — censured indeed by Bacon, if carried out in the spirit of fanciful speculation, but admitted if kept within sober and rational bounds — into the nature of angels and spirits, as also of demons, with whom are associated, by a singular analogy, not only *vices* in morals, but *poisons* in physics.[3]

In a more scientific point of view it is also

[1] De Aug. lib. ix. p. 527. In the earlier English version "On the Advancement," &c. these paradoxical expressions are omitted.

[2] Ibid. p. 530. [3] Ibid. bk. iii. p. 158.

curious to notice the question which Bacon discusses as an exemplification of his method — the truth of the received Ptolemaic astronomy — distinctly putting it as a point to be inquired into, and stating the argument on the one side, as, — that the motion of the stars from east to west is very rapid, in consequence of their distance from the earth; that of the outer planets, Saturn and Jupiter, less so; that of the inferior planets, still less; that of the atmosphere, though perceptible within the tropics, very little; and by induction, therefore, that of the earth absolutely nothing [1]: while, on the other side, the inquiry is to be diligently pursued whether there are any equally good arguments in favour of the imaginary hypothesis of Copernicus beyond its simplicity and beauty, which he fully admits.[2]

View of the system of the world.

Bacon, indeed (in his "Thema Cœli"), speaks of the fixity of the earth as that "which seemed to him the more true opinion," though he, in the same work [3],

[1] Nov. Org. lib. ii. § 36, p. 207, ed. 1813.

[2] This case becomes the more interesting to state correctly since it was misapprehended by Laplace, who represents Bacon as arguing *exclusively* in favour of the Ptolemaic system. — *Essai Philos. sur les Prob.* p. 170, ed. 1814.

[3] Thema Cœli, ix. p. 253.

expressly admits the solar system as far as the two inner planets Venus and Mercury, yet, in the "Descriptio Globi Intellectualis," dwells on the difficulties with which he conceived the Copernican hypothesis attended; and especially expressed his wish for some system based on substantial *physical* grounds, which, doubtless, was not *yet* the case with the Copernican.[1]

The direct argument of Gilbert in its favour ("De Magnete," 1600), as well as the poetical recommendation of Milton, and, not least, the amusing paradoxes of Wilkins, tended to open men's minds to the consideration of so novel a theory in England, before the great movement towards the end of the same century.

Before the inductive philosophy was established, and consequently before the grander truths of universal order could have been thoroughly accepted in all their extent and consequences, it would be vain to seek for any enlarged philosophical views on the question of interruptions of the laws of nature.

Bacon[2], when he maintains with so much truth that "miracles were never wrought to convince

[1] See Whewell's "Hist. of Ind. Sciences," i. 386.

[2] De Aug. bk. iii. ch. 3, p. 156.

atheists," and assigns as the reason that God's ordinary works are sufficient for that purpose, overlooks the more powerful reason that no miracle could be received at all without a *previous* belief in the Divine Omnipotence, even in a very positive and extended sense. When he adds that miracles were for the conviction of the idolatrous and superstitious, he perhaps approaches nearer to the admission of the *adaptation* of such evidence to the narrowness and ignorance of those to whom it was addressed. Miracles

In estimating his opinions on the subject of the supernatural, we must not omit to remark the caution which he lays down in another place respecting the strict scrutiny to be used in collecting recorded instances of marvels, monstrous productions of nature, and the like. "Above all," he adds, "every relation must be considered suspicious "which depends in any degree on religion, as the "prodigies in Livy."[1]

On the other side, we must notice his somewhat far-fetched homage to the miracles of Christ, as having conferred the highest glory on medicine[2], as

[1] Nov. Organ. ii. Aph. 29.

[2] De Aug. iv. 2.

well as his more devout reflections on them in his "Meditationes Sacræ."

The inestimable value and importance of the one grand Baconian maxim, "Give unto faith the things which are of faith," and its great significance in relation to the modern advance in physical generalisation, has been commented on in former essays.

It is to the full and complete realisation and application of this broad principle that we may look with confidence for removing a mass of objections and difficulties from philosophical sources which have embarrassed and obscured Christianity, and have been often held forth as fatal to its cause. Such difficulties, however, disappear when it is simply considered that, however forcibly urged in reference to matters of sense, properly subjects of reason, they are inapplicable when the question is one of faith, and refers to truths of a totally different order.

Bacon's "Confession of Faith."

We must not forget to mention that remarkable production Bacon's "Confession of Faith," not published till 1641, fifteen years after his death; a production which has excited the admiration of the more strict dogmatists, as exhibiting a remarkable

testimony to the orthodox creed. We may remark in it, that besides a profession of belief in the creation as well as in the Incarnation, the true resurrection, and visible ascension of Christ, he expressly declares that He showed Himself "a Lord of nature in His miracles." It is, however, material to remark that these declarations are put forth as articles of "faith," which we must fairly understand, in accordance with his own profound and most important distinction between faith and knowledge.

General character of the Baconian philosophy

As to the general tone, spirit, and character of the Baconian philosophy, some degree of misapprehension very commonly prevails. By some it is degraded into mere utilitarianism, aiming only at practical advance in the arts of life. By others, its "*inductive*" character, in the narrow sense of the term, as opposed to "*deductive*," has been insisted on, but just in the same erroneous light as an exclusively *deductive* character has been assigned to the Aristotelian system; whereas its founder expressly made *induction* of the most primary importance. The Baconian method is essentially a combination of both processes; and the material distinction is, that whereas in the Aristotelian method

the *deduction* sets out from first principles assumed on mere ideal, or even verbal, abstractions, the Baconian *deduction* necessarily sets out from some principles originally *inductive*, however simple and elementary.[1]

But the followers of Aristotle did not act up to the principles of their master; and the system degenerated into one purely deductive and fruitless, because it neglected to appeal also to induction. This system, therefore, became a failure, as after it did the Cartesian, because the deductive and inductive methods were disjoined, and the latter not even recognised. The Baconian system triumphed, because the two processes were closely united and mutually dependent.

'est of true hilosophy.

If the power of permanently advancing and constantly enlarging the boundaries of knowledge by its *inductive* discoveries, while, by its *deductions*, it fully keeps pace with and even outstrips and predicts the progress of experiment, be the characteristics of a true philosophy, by this test we

[1] See this upheld and exemplified, "Unity of Worlds," Essay I. § 1. p. 21, *et seq.* 2nd edit.

at once recognise the superiority of the Baconian method.

The philosophy of Aristotle, because it affected to be unalterable, was transitory; while that of Bacon and Galileo, because it is ever in change and movement, is permanent.

Thus alone can any philosophy be the true interpreter of nature; and by showing itself conformable at once to nature and to reason, attending alike to fact and to theory, can alone elicit those indications of universal reason which pervade nature.

Rejection of authority.

One highly distinctive characteristic of the modern inductive philosophy, is the principle of *unlimited freedom of inquiry*, and a rejection of the trammels of authority under which older systems were hampered and impeded from all real progress. The inductive spirit acknowledges no dominion of one mind over another, except so far as one may be more fully instructed and guided by the supreme authority of nature than another. And this is only in matters of opinion where an experienced judgment, conferring a more enlarged view of natural analogies, comes to the aid of sensible evidence,

independent observation, diligent and accurate collection of facts.

Lingering influence of ancient systems.

So deeply had men's minds been impressed with the peculiarities of the scholastic philosophy and its theories, so congenial to men's fancies, of imaginary, occult, and mystic powers and properties in matter, that, even under the new system, it was long before inquirers could altogether divest themselves of such conceits; and even to the present day science has hardly perhaps effectually cleared itself of them to all apprehensions. At any rate, we trace numerous instances of such influence pervading at least the language of philosophical writers, if not rendering the conception of better views difficult and uncongenial.

Philosophy in the 17th century as bearing on theology.

The state of philosophy in the earlier part of the seventeenth century, notwithstanding the great movement made by Bacon and Galileo, was by no means as yet such as to be capable of leading to enlarged views of the great idea of universal order in nature, even if it could have been considered at all proved in the then state of discovery. On the other hand, the spirit of technical metaphysics retained a strong hold on the conceptions, and guided the

speculations of philosophers as well as divines. Hence, while abstractions of a very recondite kind characterised the theological disquisitions of some of the keenest intellects of the age, and, in several cases, led to serious difficulties and objections with reference to the higher doctrines of revelation, there was little disposition to enter on any kind of question as to the relations of that revelation to physical truth.

Indications of the tendency of views, in any case, on the one side, are often to be collected from writings which obtain repute on the other. Thus we may gain some notion of the character of scepticism at the period in question from what was confessedly the standard treatise on the evidences of religion, that of Grotius "De Veritate" (1627), in which it is remarkable that, in respect to miraculous evidence, while the author dwells largely on testimony, authority, conformity to the Divine attributes, and other like topics, and combats a variety of objections, he yet never makes the slightest allusion to any influence of *physical* considerations as affecting the question; and the fact that his work should have so long sustained its reputation as the

Hugo Grotius.

text book on the subject, shows how little the main question of later times was formerly so much as recognised or thought of.[1]

As a further single instance, it may be added, that when we consider what the state of physiology must have been before the circulation of the blood was admitted (which was only announced in 1628), we shall hardly be surprised at the strange physiological theory adopted by Grotius, in order to maintain the tenet of the resurrection of the *same* body, which among other points of *physical* belief was anciently much insisted on.[2]

Lord Herbert of Cherbury.

Lord Herbert of Cherbury[3], in his book "De Veritate," &c. (1624), while, in accordance with his metaphysical scheme of intuitive elements as the source of all real conviction, he anxiously engaged in elaborating what he conceived a philosophical view of religious truth; yet, in the more tangible province of the material world, he not only fully admitted the general credibility of interruptions of

[1] See especially bk. i. § 13; bk. ii. § 5; bk. iii. § 7.

[2] De Verit. lib. ii. § 10.

[3] See especially "De Verit." p 230; and his "Memoirs," published by Horace Walpole, 1764.

nature, but firmly relied on such supernatural attestations in his own times and personal experience.

Philosophy of Descartes.

But we must now glance, however cursorily, at a system of philosophy, which, though brilliantly conceived, eminently concurring with the advance of thought in its day, and attaining such general influences as to supplant for a time the hitherto received Aristotelian method, was yet destined in its turn, indeed from its very nature, eventually to yield before the steady progress of the real inductive principles of Bacon and Galileo.

The philosophy of Descartes, aiming at an explanation of the whole system of the world on a common physical principle, must be regarded (hypothetical as it confessedly was) as powerfully tending to support the idea of universal and invariable physical causation, and thence the grand conception of cosmical order, though incapable then of receiving that detailed proof on which it now rests. The higher bearing of the system was indeed manifest from the deductive nature of the whole method, deriving even its physical principles from the primary assumption of the Divine existence and perfections, and thence

arguing downwards to natural causes all thus linked in one chain with the primary influence of presiding supreme intelligence.[1]

Cartesian theism.

The spirit and tendency of the whole Cartesian philosophy with reference to theology was sufficiently marked and peculiar. Descartes totally rejected the study of final causes.[2] On the other hand, his proof of the existence of a Deity was of that abstract kind which consisted with his entire theory; it was the simple existence of the idea of God in the mind; the cause of which, he argues, can only be its reality; just as he made thought the only proof of our own existence.

Descartes' reception of revelation.

Again, the philosophy of Descartes was throughout preeminently characterised by asserting the unlimited supremacy of human reason, and the total rejection

[1] Descartes, in laying down the primary laws of motion, says:—"Atque ex hac eâdem immobilitate Dei, regulæ quædam sive leges "naturæ cognosci possunt, quæ sunt causæ secundariæ ac particulares "diversorum motuum quos in singulis corporibus advertimus." He then proceeds to deduce some of the primary laws of motion and force: and after giving the proof of one part of the theorem of collision of bodies, he continues, "Demonstratur etiam pars altera ex immutabili-"tate operationis Dei, mundum eadem actione qua olim creavit continuo "jam conservantis."—*Principia Philos.* p ii. § 37.

[2] Principia Philosophiæ, pt. i. § 28. (1644.)

of external authority. Yet, notwithstanding the adoption of this high standard in philosophy, he professes an entire acceptance of the mysteries of faith and the truth of revelation as matters not cognisable to reason; as is abundantly testified by a passage towards the very commencement of the systematic exposition of his principles; where he distinctly asserts that matters communicated by Divine revelation ought to be believed, though they may be beyond our comprehension, such as the mysteries of the Trinity and the Incarnation, and generally, he adds, that both in the Divine nature and in creation there may be many things beyond our comprehension.[1] In deducing all physical action from the "immutability of the Deity" and thus making it equally in its nature invariable, he yet expressly admits an exception with regard to "such mutations

[1] "Credenda esse omnia quæ a Deo revelata sunt quamvis captum "nostrum excedant. . . . Ita si forte nobis Deus de Seipso vel "aliis aliquid revelet quod naturales ingenii nostri vires excedant, qualia "jam sunt mysteria Incarnationis et Trinitatis, non recusabimus illa "credere quamvis non clare intelligamus. Nec ullo modo mirabimur "multa esse tum in immensâ ejus naturâ, tum etiam in rebus ab "eo creatis, quæ captum nostrum excedant."— *Cartesii Princip. Philos.* p. 7.

"as are made in matter, by evident experience or "Divine revelation."[1]

Yet in spite of these and the like professions, Descartes, not without reason, from the mere fact of his opposition to the scholastic philosophy, lived under constant apprehension of persecution from the ecclesiastical authorities; assailed on all sides by calumnies and anathemas[2] he only escaped actually suffering from the hands of the sacerdotal functionaries by finding an asylum in the court of Queen Christina of Sweden, where, as is well known, he ended his days a victim to the climate.

Followers of Descartes.

The broad profession of faith made by Descartes, though supported by his disciples Malebranche and De la Forge, was modified by a seasonable degree of caution on the part of one of his most eminent followers, Rohault, whose "Physics" was long the text-book of the Cartesian doctrine, and who observes, "it is unbecoming philosophers on all occasions

[1] Principia, pt. ii. 36.

[2] In illustration of the kind of accusations which the polemical spirit of the time brought against the philosophy of Descartes, even among Protestants, the reader may refer to Bp. Stillingfleet's "Origines Sacræ," vol. ii. p. 417, ed. Oxf. 1797.

"to run to miracles and Divine power;"[1] thus affording at least an indication of the increasing discrimination of the age as to the proper character and limits of philosophical investigation.

Hobbes.

The celebrity of Hobbes depends almost entirely on his metaphysical, moral, and political writings (1642—78). His speculations on physical as well as theological subjects evince little philosophical enlargement of ideas, and are conceived much in the formal scholastic spirit then prevalent. Yet the increasing influence of more positive principles may be traced in the precision of his conceptions on many points of philosophical inquiry, and his assertion of unlimited freedom of opinion is indicative of the spirit of progress.

His theological views.

In regard to higher subjects, he certainly appears to evince a clear appreciation of the value of the Baconian maxim distinctive of the provinces of reason and of faith; "Dignius credere quam scire."

In his most celebrated work (especially in the chapters on religion in general, and that entitled

[1] Rohault's "Physics," pt. i. c. 10. He died 1675.

"De Civitate Christianâ")[1], his discussion on these subjects almost wholly consists of formal dogmatic expositions in the most literal sense of the accepted creed.

In one passage indeed, he introduces a caution against mixing up *physical* with religious doctrines; but in the sequel it appears that this refers only to guarding against transubstantiation.

He supports at length the received evidential argument from miracles, exactly in the formal manner of theologians, as the only proof of a Divine revelation; though admitting the qualifying appeal to internal evidence of the worthiness of the doctrine.[2]

Physical views.

In the physical portion of his "Elementa Philosophiæ" he evinces in general little advance beyond the ideas of the age; though, on some points, a singularity of opinion or expression strikes us. Thus, he expressly maintains that opinions respecting the *magnitude* or the *origin* of the universe, ought properly to be left to *theological* authorities to

[1] Leviathan, ch. xiv. and ch. xxxiii.

[2] Ibid. ch. xii. and ch. xxxvii.

decide.[1] And on similar questions appeals to the authority of *Scripture* supported by that of *miracles*, the *customs* of our country and the reverence due to the *laws*.[2]

In one passage, indeed, speaking of the interpretation of some parts of Scripture, he ventures so far as to affirm that we must not adopt too *literal* a sense; as in the instance of the assertions of the immobility of the earth and the like; observing that the object of revelation is not to teach philosophy, but religious faith and duty.[3]

He evinces a just discrimination with respect to the popular prejudice against second causes, asserting distinctly on the contrary, that "ignorance

[1] T. Hobbes's "Opera Omnia Philos." Amst. 1678; "Elem. Philos." p. 204.

[2] Ibid. p. 205. "Quæstiones igitur de infinito et æterno sciens præ-"tereo, contentus eâ doctrina circa mundi magnitudinem et originem "quam suaserint Scripturæ sacræ, et quæ illas confirmat miraculorum "fama, et mos patrius, et legum reverentia debita."

[3] "Argumenta quæ a formula dictionis sumantur, firma non esse: "Quoties enim loquitur Scriptura sacra de terra ut immobili, quam "tamen philosophi hodie fere omnes moveri censent signis evidentissi-"mis? Scriptura sacra est a prophetis et apostolis ad docendum non "philosophiam (quam ad exercitium rationis naturalis contemplationibus "disputationibusque hominum reliquit Deus), sed pietatem et salutis "æternæ viam."—*Leviathan*, c. viii. p. 41.

"of second causes makes men fear some invisible "agent like the gods of the Gentiles; but the inves- "tigation of them leads us to a God eternal, infinite, "and omnipotent," and he pursues the argument to show that this ignorance of second causes conspiring with certain common prejudices, as those relating to supposed spiritual and supernatural beings, and the like, are the natural source of all corrupt and superstitious forms of religion.[1]

But again, as to the ground of belief in revelation, he avows, "we have no *certain knowledge* of the "truth of Scripture, but trust the holy men of God's "church, succeeding one another, from the time of "those who saw the wondrous works of Almighty "God in the flesh."[2]

Upon the whole what surprises us is that a man professing theological views so little distinguishable from the most orthodox creed of his day, should have been obnoxious to charges of scepticism and even of atheism, did we not know how liberally those

[1] The same argument is more expanded in his "Leviathan," c. xii. p. 55.

[2] Human Nature, c. ii.

epithets are bestowed from mere personal or party animosity.

Sir T. Browne.

The publication of Sir T. Browne's "Inquiry into "vulgar and common Errors" (1646) has been justly commented[1] on as a remarkable case of the advancing influence of the enlightenment of the age on a mind previously given to superstition and credulity in no ordinary degree, as evinced in his earlier work the "Religio Medici," (1633): and the author's able remarks on subjection to authority, neglect of inquiry, and the spirit of credulity as the main sources of popular and philosophical error[2] are doubtless urged in the true spirit of progress. Though when we look to the details, we must make much allowance for the slowness with which progress manifests itself.

We must recognise the ideas of the age in the earnestness with which he introduces and denounces as the main source of all errors, the malignity of the devil, continually engaged in a warfare against truth, obscuring and misleading men's minds, and propa-

[1] Buckle, "Hist. of Civilization," i 334.

[2] Vulgar Errors, bk. i. ch. 5.

gating every kind of delusion, not only on moral and religious points, but even on physical and common subjects. And among these deceptions of Satan, the most notable are the practices of magic, witchcraft, and the like [1]; which by his agency, men took for realities.

It is sometimes impossible to repress a smile at the author's cautious insinuations of possible doubtfulness in some cases of the most incredible absurdities; or at the elaborate learning he brings to bear on them; as in arguing against the existence of the Griffin and of the Phœnix [2]; or his recondite speculation on the physiology of Adam and Eve.[3]

His remarks on the possible interpretation of the history of Lot's wife and other Scripture miracles by a figurative philology [4] may find their parallel in some modern speculations, though he prudently concludes, "with industry we decline such para-"doxes and peaceably submit unto the received "acceptation." [5]

[1] Vulgar Errors, bk. i. ch. 10, 11.
[2] Ibid. bk. iii. ch. 11, 12.
[3] Ibid. bk. v. ch. 5.
[4] Ibid. bk. vii. ch. 11.
[5] Ibid. bk. vi. ch. 1.

His profession of scepticism as to the commonly received antiquity of the earth, resolves itself into insisting on the falsity of all the ancient traditions of the heathen nations and the entire discrepancies in the *chronology* of the Hebrew, Samaritan and Septuagint versions of the Old Testament, rendering them all alike unworthy of credit.

Lastly, not to multiply instances, the author's elaborate discussion [1] to illustrate the Divine wisdom in making the sun to move round the earth, which is fitly ordained to be stationary in the centre, and his several arguments in support of the beneficent design of this arrangement, might have afforded a valuable lesson to many modern writers on final causes.

Mysticism of R. Fludd.

A singular exemplification of the extent to which the contradictory notion of making *faith* the basis of *science*, was carried about the period of which we are treating, may be found in the strange system of R. Fludd (who had previously been known for some anatomical researches, also curiously connected with mystical ideas), in which he makes the writings

[1] Vulgar Errors, bk. vi. ch. 5.

of Moses the basis of what, by a strange misnomer, he calls, "the Christian science of creation!" The worthy precursor of the Hutchinsonian mysticism.[1]

Mystical medicine.

From the earliest ages the medical art had been more or less connected with the supernatural. Hence it is not surprising that even in later times when philosophy assumed so much of the mystical form, a similar character should attach itself to medical speculation, as was strikingly exemplified in the extraordinary doctrines of Paracelsus; which long continued their hold on the profession, especially in Germany. It was in the same spirit that the Rosicrucians pretended that they had only to look on a patient to cure him. Van Helmont embellished the Paracelsian doctrine with additions of his own: he held that the object of medicine was to regulate the "archæus" — the ruling immaterial principle of life and health, — to which he ascribed a mysterious and separate existence, and placed the seat of it

[1] "Philosophia Moysaica, in qua Sapientia et Scientia Creationis et "Creaturarum sacra verèque Christiana (cujus Basis est Lapis An-"gularis Jesus Christus) ad amussim explicatur Authore Rob. Fludd, "alias de Fluctibus. Gardæ, 1638." His former works were entitled "Anatomiæ Amphitheatrum," &c. 1623; and "Medicina Catholica," &c. 1629.

in the *stomach:* in this point doubtless showing some practical discernment.

Any reference to the philosophy of the 17th century must be very defective if it omitted the mention of Boyle. In the experimental investigation of nature he was undoubtedly one of the most laborious and distinguished, as well as one of the foremost to advocate the new method, and to vindicate the principles of the inductive philosophy against the numerous prejudices with which it had then to contend. Boyle.

His physical researches were nearly all made some years before the publication of the Newtonian discoveries; and in estimating his opinions we must make considerable allowances for the state of knowledge as well as for the then prevalent tone of reasoning. Hence, for example, we shall rather regard it as a proof of his enlightenment that after referring to the received scheme of the Ptolemaists, he speaks with greater favour of "the Copernicans, — that growing "sect:" or that though a believer and a labourer in alchemy, he was anxious to support its pretensions on rational and chemical grounds.

His more metaphysical and theological reasonings

were (as might be expected) marked throughout by the peculiarities of his time. His discussion on natural theology, and his vindication of the study of "second causes," as in no way really detracting from the admission of a "first cause," are, of course, carried on in the spirit of that philosophy, which had not yet analysed the idea of causation.

He believed the whole universe subservient to the well-being of man, for whom he says "God originally "created, and has vouchsafed by miracles to alter the "course of nature."[1] While speaking of the Mosaic narrative, which he regards as designed for a real physical record, he adds, "though, that in most other "places of the Scripture when the works of nature are "mentioned but incidentally in order to other pur- "poses, they are spoken of rather in a popular than "accurate manner, I dare not peremptorily deny."[2] And in a like tone of extreme caution he insinuates (following Bacon) that the examination of the book of nature may be valuable for the better understanding of the volume of revelation.

[1] Usefulness of Exp. Philos. p. 24. 1665.

[2] Ibid. p. 29.

Natural and supernatural knowledge.

Some illustration of the state of ideas at the period now referred to may be collected from the circumstances attending the first commencement of the Royal Society, of which Boyle was one of the founders; in whose original charter it was expressly laid down that its object was the advancement of "natural knowledge" understood as opposed to "supernatural." It was probably chiefly to satisfy the public mind on this point that Bishop Sprat (one of its earliest members) wrote his "History of the "Royal Society" (1667); which is in fact simply a popular exposition of some of the chief subjects which then engaged the researches of its members, to show that they were not followers of occult arts; while in a higher spirit he enlarges on the tendency of such studies, as eminently favourable to arming the minds of their votaries against the influence of fanaticism and superstition; doubtless aiming at the morose and ignorant prejudices of the puritanical party, which had so recently been dominant.

Demoniacal influence.

In fact the belief in the occult arts was at this period beginning to undergo a gradual process of subversion, at least among the better educated. It may be worth remarking that it was in connection

with the subject of witchcraft, that a Dutch theologian, Bekker (about 1690, in his "Monde Enchanté") followed up the denial of all real power to evil spirits, by extending his speculations to the cases of Demoniacs related in the Gospels, and endeavoured to explain them by natural causes: an attempt afterwards so largely carried out by Semler and the Rationalists.

Pascal. In Blaise Pascal we must recognise one of the brightest ornaments as well of science as of theology, in the age in which he lived. In him we find a combination of high and diversified excellence seldom united in the same individual;—transcendent powers of mathematical and physical investigation, joined with equally high ability in moral reasoning, clothed with glowing eloquence, and all absorbed in a predominating spirit of intense religious feeling. Of his geometry, only some colossal fragments remain; in physics, the earliest generalisations of atmospheric as well as hydrostatic pressure are associated with his name, while his "Thoughts" (not published till 1670, some years after his death) are perhaps the chief monument of his powers of philosophical and moral discussion applied to theology, and made subservient to the defence of the Christian doctrine.

In regard to more positive evidential arguments, whether in regard to natural or revealed religion, his expressions and mode of reasoning betray some vagueness.

Pascal's belief in miracles appears to have received a powerful support from his conviction of the miraculous cure of his niece, Madlle. Perier, by the touch of the Holy Thorn. Such a faith would be little in accordance with the modern evidential distinctions; and we may thus account for some expressions in his writings which might otherwise be imagined of sceptical tendency; while his appeal to the principle of faith, and his avowed preference for the practical argument that it is *safer* to believe,—are but in accordance with the general spirit of the Roman Catholic theology. Yet his philosophical mind is continually evinced in remarks which bear a profound examination; as, for example in the emphatic sentence: "Reason "confounds the dogmatists,—nature, the sceptics."

Speculativ systems of the world.

The latter part of the 17th century abounded in speculations of a mixed physical and metaphysical kind, which in one sense may seem to be related to the advance of the study of natural order, though in another they were rather its hindrances as leading the

thoughts to conceptions but alien from the legitimate method of prosecuting it. One of the most celebrated of these speculative theories was that of the erudite Cudworth ("The Intellectual System of the Universe," 1678), in which, among other metaphysical conceptions of great abstruseness, he indicated in a very remarkable manner the increasing sense of the invariableness of natural order, by introducing what he termed the principle of "plastic nature,"[1] in order to account for the operations of physical laws without the continual direct agency of the Deity. But his description of this principle is of so confused and mystical a kind, that it can convey little if any real philosophical meaning. He speaks of the "reluctance and inaptitude of matter," as if the Deity had to contend against it.

Other writers appealed to what they termed "occasional causation," as well as various hypotheses, nearly all originating out of some modifications of the Cartesian philosophy, or rather, perhaps, a kind of transition condition between it and the more advanced inductive system, which soon tended to

[1] Intell. System, iii. 37.

set aside such speculations, or at least to keep them separate from all real and exact physical views. These metaphysical theories did not directly aid in establishing any legitimate generalisation of the laws of matter, and could lead to no substantial advances in the study of nature. Yet they should not pass without notice, especially when taken up, as they were, by such men as Gassendi, Pascal, and others, as indicative of a more enlarged spirit of inquiry and research than the exclusive devotion, whether to the Aristotelian or the Cartesian systems, had hitherto allowed.

Gassendi, indeed, in his "Institutiones Philosophiæ," maintained more purely inductive principles, and especially attacked the metaphysical principles of Descartes in his "Disquisitio Mathematica" (about 1680). Hence some writers have drawn a distinction between two great European schools: the metaphysical, or Cartesian, and the mathematical, or that of Gassendi; and, following this distinction, have ranked in the former sect Leibnitz, and in the latter Newton.

Spinoza.

Among the theories referred to, the abstruse speculations of Spinoza were almost entirely of a metaphysical kind, and led to an extensive pantheistic and necessitarian system. Yet, in accordance with

existing physical ideas, he seems to have admitted the supernatural, though he argues that the actual boundary between it and the natural cannot be determined till the whole extent of nature shall become known to us [1]; unless, indeed, we interpret this as a virtual rejection of any such distinction.

General tendency of metaphysical theories.

But, while in a strictly physical point of view, these theories are of little value, there is still one feature common to them all; however metaphysical, however little directly founded on physical induction, however hypothetical, however mystical, visionary, or even delusive; yet, they all agree in this, that they were *professedly philosophical* theories; they were *designed* at least to be results of the pure exercise of *reason;* and *avowedly* admitted no other authority. They were intended for *generalisations* of conclusions and truths *extending to all nature,* and supposed to include the *whole* system of the world. They, therefore, would necessarily imply *some general idea* (however faulty in its details or its foundation) of *universal law and order;* and the mere recognition of such a principle, leaving nothing either to

[1] See especially Epist. 23. 1677.

arbitrary intervention or to inexplicable destiny, but professing to conceive everything *regulated by law and explicable by reason*, was a recognition of the only true philosophical basis of all scientific knowledge, pointing at least to some conception of the unity of all nature.

§ III. — THE PERIOD FROM NEWTON TO LAPLACE.

The Newtonian epoch.

WITHOUT having adhered rigidly to the order of chronology, we now arrive at that grand epoch which disclosed to the intellectual world views of the physical universe, and an effectual clue to their further explanation, never before attained, never since surpassed, and never to be superseded, in the discoveries of Newton, especially the system of universal gravitation.

The inductive laws of Kepler were wholly unconnected with any conception of mechanical causes, or with the physical views of Galileo: — Gravitation had been hinted at by Bacon, or even earlier: — the diffusion of the force in proportion to the square of the distance was more distinctly conceived by Bullialdus, but in no relation to orbital motion: — Horrox had exhibited experimentally the combination of impulsive and central force, in the revolution of a freely suspended pendulum: — the ancients

had discovered the properties of the conic sections:—But no one had *combined* these scattered elements.

Newton's discoveries.

Newton, listening to suggestions unheard by others, though continually addressed to all, in the spontaneous fall of bodies to the earth, by a force which he argued must be the same for planets as for apples,—verified the idea by calculation; solved the difficulty of elliptic orbits, giving the dynamical demonstration of Kepler's laws, by the aid of the peculiar geometry he had opportunely also himself created; extended the same theory to comets, and advanced to at least a general investigation of the mutual disturbances of the moon and planets; the figure and density of the earth; the tides; and the precession of equinoxes;—all consequences of one and the same grand principle.

Value of his researches.

To estimate the magnitude of these discoveries, we should place ourselves in imagination in the position of an age to which all these great phenomena appeared isolated and unconnected; when the only idea of moving force was that of mere *carrying*, like the arm of a lever; when vague ideas of "animal force" or peculiar "virtue" furnished the only conceptions of physical agency; and the whole

universe was a mystical body, animated by a no less mystical species of vitality, not resolved into any definite mode of action or capable of calculation.

Circumstances of his history.

In looking at the immense advance effected by these pre-eminent discoveries, and the incalculably beneficial results which have flowed directly, and still more indirectly, from them, we cannot but incline to view the circumstances under which they were effected, and which were in several respects remarkable, in connection with the peculiar intellectual and personal character of Newton himself; the precise estimate of which seems a problem which none of his biographers or commentators have been fully able to solve.

No great discoverer was, perhaps, ever less influenced by his own discoveries, or seemed to value them so lightly. He made the capital invention of fluxions (1666), and kept it a profound secret for twenty years; thus allowing Leibnitz to forestall him in the announcement of what was practically the same method. He had effected, but mislaid and forgotten, the important demonstration of elliptic orbits, though he recalled it when pressed by Halley (who, with Hooke and Wren, had in vain

attempted it), and, at his request, composed the whole of the Principia within eighteen months[1]; but when two thirds of it were printed (at Halley's expense), Newton wanted to suppress the latter part containing the whole application to the planetary system, and was only induced by Halley's urgent remonstrances to allow the whole to appear (1687). When his invaluable optical discoveries were attacked, he repented their publication because he was "deprived of his tranquillity for the "sake of a shadow" — an elevation of philosophy which certainly few have attained.

Character and opinions of Newton.

The transcendent intellectual might which enabled him at once to solve the great problem of the mechanism of the planetary world, to analyse light, and to discover the mathematical key to the treasure-house of all nature, contrasts strangely with his indifference or even reluctance to following up or making known these splendid researches; and his far deeper absorption in some pursuits hitherto not explained, but which are now known to have been

[1] Professor Rigaud's "Essay on the Publication of the Principia," p. 92. Oxford, 1838.

those of alchemy.[1] Again, when he had reluctantly been induced to bring out the most splendid physical investigations, he turned from those fields of real and demonstrative science, in which he had reaped so rich a harvest, with just the same, or perhaps more satisfaction to the shadowy regions of mysticism, and the solution of the prophetic visions of the Apocalypse.

His metaphysical theology.

Newton's grand inference from the vast cosmical views he had disclosed (expressed in the celebrated "Scholium," at the end of the Principia), has been the theme of much admiration. "This most beauti-"ful system of planetary motions," he argues, "could "not originate otherwise than in the wisdom and "dominion of an intelligent and powerful Being;" and from this idea of *origination* he then proceeds to enlarge on and deduce the nature and attributes of that Divine Being, though in the technical language of the period; and still further (in the queries, at the end of the "Opticks") he inculcates yet more precise metaphysical ideas of the Divine Essence, in modes of thought and expression which are

[1] Brewster's "Life of Newton," ii. 93. &c.

eminently characteristic, and afford illustrations of the influence of the metaphysical spirit of that age on so great a mind. Again the idea of the immediate physical action of the Divine power in constituting the system and communicating motion to the planets, is more minutely dwelt upon in his letters to Bentley.

Perturbations of the system.

In the state to which, by his unparalleled discoveries, he had brought the investigation of the celestial motions, there was still a great desideratum in regard to the full explanation of the details of the lunar and planetary perturbations. The former, he avowed, were left imperfect; and for the latter his researches could only lead him to the inference that in process of time they would so accumulate as to bring all things into confusion, and thus he expressed his belief that after a time Divine interposition would be necessary to restore the system to order.

Miracles and mysteries.

Thus familiar with the assumption of Divine intervention in nature, he maintained a belief in the miracles of the Church during, at least, the first three centuries; though he speaks of the narratives of the demoniacs as "the language of the ancients for cur-

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"ing lunatics."[1] Even with this slight exception, the general absence of all question as to the *physically* marvellous, in his views, contrasts remarkably with his hesitation as to points of *doctrinal* mystery. It was evidently under a strong feeling of this kind that he so keenly contested the genuineness of two well-known doubtful texts, then upheld as the strongholds of orthodoxy; and there can be no doubt that his opinions, like those of his friends Locke and S. Clarke, leaned considerably towards Arianism, doubtless under the influence of metaphysical views of the Divine Unity.

Remoter influences of the Newtonian philosophy.

It is not in the immediate personal opinions of the great inventor and discoverer, nor in those of his cotemporary disciples, that we can always look for the full influence of the spirit of his philosophy, especially in those respects in which it may extend beyond the mere letter of the actual physical truths, however grand and comprehensive, which it announces, to other subjects not apparently or directly connected with them, and producing remoter effects on the general condition of mind and tone of thought communicated by the diffusion of these views and

[1] Brewster's Life, ii. pp. 319, 320.

their adoption in the course of the higher education of succeeding generations.

Perhaps a not less considerable, but very distinct kind of influence, was exerted by the philosophy of Newton's great cotemporary — and, in one point, his rival — Leibnitz. Philosophy of Leibnitz

He had been the first actually to furnish the great instrument of mathematical investigation for the whole modern mechanical philosophy — which Newton had indeed long before conceived, but did not publish — in his method of differential calculus (1684). The physical philosophy of Leibnitz was of a more abstruse and deductive nature than that of Newton; his speculations on motion of a more transcendental kind. He was desirous of referring all phenomena to a common principle, including the rotations and revolutions of the earth and planets, gravitation, magnetism, light, and other physical modes of action; the great principle concerned in them all he makes to be "æther," and adds — "is enim fortasse est ille spiritus domini qui super aquis ferebatur."[1]

[1] Hypothesis Physica Nova, et Theoria Motus Abstracti, p. 9. Lond 1679.

Monads.

To his "monads" it is difficult to affix any certain physical meaning; and when he deduces as a consequence that the universe is bound together into one continuous and coherent whole, in the abstract language he employs, it is impossible to decide whether he fully apprehended, or intended to assert, the real immutability of natural laws. The same may be said of the "pre-established harmony," which is so fundamental a principle of his system. It, at all events, seems clear that these conceptions were closely connected with, indeed founded upon, the idea of the Divine perfections.

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Continuity and order.

Leibnitz's idea of the "plenum" of all creation seems to be nearly identical with that of "continuity," or the denial of any break or gap in the order of things; but his precise physical application of it is obscure. *Assuming* the Divine will as the basis, he makes the general law of the universe to be nothing else than the totality of all special laws, which, divested of mysticism, seems little better than tautology.

His maxim "Universum maximo gaudet ordine"[1]

[1] See "Principia Philosophiæ Leibnitzii," by Hanschius, pp. 139, 143. 1728.

and his application of the "pre-established harmony" as the source of certainty in all events, are wholly based on theistic considerations.

In fact, his entire philosophy was conceived in close connection with theological views by deductive argument from the assumed perfections of the Deity; whence he came to consider the whole question of the moral government of the world and the perplexed problem of evil, in his "Theodicée." Theological principles.

For our present purpose it is only necessary to remark that the influence of Leibnitz's philosophy was no doubt, on the whole, favourable to the advance of real physical truth. Though itself of a metaphysical character it still tended to deliver physical inquiry from the dominion of the narrow scholastic systems; and furnished ideas of a kind far more conformable to the inductive philosophy.

It is chiefly in connection with the "pre-established harmony" that Leibnitz is led to discuss the subject of *miracles*; but it must be confessed that his expressions are somewhat obscure. Miracles.

He holds that the laws of nature are not arbitrary, but are imposed in accordance with Divine Wisdom. "Ainsi," he says, "le miracle n'est une exception de

"ces lois que parcequ'il n'est pas explicable par la "nature des choses." [1]

In his correspondence with Dr. Clarke, he dwells on the difference between wonderful natural events and miracles [2], and among the latter, includes expressly the commencement of the celestial motions, and the origin of plants and animals.[3] Yet he elsewhere allows that all things are in some sense miraculous.[4]

In another part of his writings, however, he expressly includes in the class of "miracles, *pro-* "*perly so called,* creation, annihilation, and the in- "carnation of the Son of God." [5]

Upon the whole it is by no means clear to what extent he actually held any views approaching the principle of physical, universal, and invariable order, except as essentially dependent on, and animated by the Divine volition which was the *basis* of his philosophy, not a *deduction* from it.

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[1] Leibnitzii Opera Omnia, ed. Dutens. vol. ii. pt. i. p. 101. 1778.

[2] Ibid. p. 141. [3] Ibid. p. 168. [4] Ibid. pt. ii. p. 61.

[5] See "Principia Philosophiæ Leibnitzii," p. 173. 1728. The editor or compiler Hanschius gives this from a letter of Leibnitz to himself.

His multifarious discussions are almost exclusively of a metaphysical, and often merely verbal character, on questions then deemed all important, but which at the present day would excite no interest, and to which he makes the really tangible points of positive science wholly subordinate.[1]

Yet in reference to the higher considerations of natural order, we may take as a far more distinct

Order of nature.

[1] The following passages may illustrate the nature of the author's views on the points here referred to: — "l'Harmonie préétablié écarte "toute notion de miracle des actions purement naturelles, et fait aller "les choses leur train réglé, d'une manière intelligible: au lieu que le "système commun a reçours à des influences absolument inexplicables; "et que dans celui des causes occasionelles, Dieu, par une espèce de "loi générale, et comme par un pacte, s'est obligé de changer à tout "moment le train naturel des pensées de l'âme pour les accommoder aux "impressions des corps, et de troubler le cours naturel des mouvemens "du corps selon les volontés de l'âme — ce qui ne se peut expliquer que "par un miracle perpétuel: pendant que j'explique le tout intelli-"giblement par les natures que Dieu a établies dans les choses." — Leibnitz, *Considérations par les Principes de Vie, &c.*, Opera Omnia, vol. ii. pt. 1. p. 40, 1778.

"Unde nollem cum Malebranchio dicere Deum legibus generalibus "derogare quotiescunque ordo exigit; neque enim uni legi derogat "nisi per alium legem magis adplicabilem; et quod ordo postulat, non "potest non esse conforme regulæ ordinis, quæ ex legibus generalibus "infima non est. Miraculorum (rigidissime sumptorum) character "est, ut per rerum conditarum naturas explicari non possint." — Leibnitz, *Tentamen Theodiceæ*, Opera Omnia, i. 280.

illustration of his views, the remarks which Leibnitz makes in his well-known letter to the Princess of Wales, where among the objections he raises to Newton's doctrines, he refers particularly to their *theological* bearing, and observes, that according to Newton the system needs frequent interposition, that it is here requisite for God "to wind up "his watch from time to time:" that His work is left imperfect, and needs occasional mending: and then more distinctly adds: —

"According to my opinion the same force and "vigour always remains in the world, and only "passes from one part of matter to another, agree-"ably to the laws of nature and the beautiful "pre-established order. And I hold that when "God works miracles, he does not do it in order "to supply the wants of nature, but those of "grace. Whoever thinks otherwise must needs "have a very mean notion of the wisdom and power "of God."[1]

Theological theories of Leibnitz.

In one particular, indeed, Leibnitz advanced in the region of positive physical speculation beyond many

[1] Brewster's "Life of Newton," ii. 285.

of his age. His theory of the earth [1], when yet no substantial geology existed, though purely hypothetical, yet approached very closely in character to the modern views: but it is more worthy of notice that he desisted from fully following it out, on the ground of its opposition to public prejudice, avowedly perceiving the *necessary* contradiction of all such inquiries, followed out independently as matters of science, to the received Mosaic Cosmogony; when in his day it could only be a *conflict of first principles*, and *ground* of the whole investigation, since no detailed examination of *facts* had substantiated any of the results which now constitute the actual points of contradiction.

Views of Newton.

In this point, as in some others, Leibnitz offers a striking contrast to his great English cotemporary; the thoughts of Newton were also engaged on the same subject; and we have a long letter from him to Dr. T. Burnett, on his "Theory of the Earth," in which Newton enters into minute critical details on each point of that hypothesis to reconcile it with

1 Protogea, § 21, published in 1749, but written before 1700; see Hallam's "Lit. of Europe," iv. 590.

the Mosaic narrative[1]: the physical authority of which, however he may interpret its details, he all along assumes as beyond question. Thus he observes: "as to Moses, I do not think his description "either philosophical, or feigned; but that he de- "scribed realities in a language adapted to the sense "of the vulgar."[2]

Halley's geological views.

The same subject was also much discussed by Halley[3]; but in a far more independent and philosophical manner; contending that the appearances presented by the earth's crust could not be accounted for by the then received Diluvial theory, but must be remains of a former world or even several such before the creation of the present.

On another occasion[4] he adduced other arguments for the antiquity of the earth; but thought it necessary to suggest, that this long period might be consistently supposed anterior to the creation of man: and that the six days might bear a figurative sense.[5]

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[1] Brewster's "Life of Newton," ii. 447. [2] Ibid. p. 450.

[3] Phil. Trans. 1687 and 1724. [4] Ibid. vol. xxix. p. 296.

[5] These speculations were doubtless quite sufficient with some cotemporary authorities to represent H alle-

Diluvial hypothesis

The prevalent theory in the latter part of the 17th century was, that all appearances of changes or violent action presented by the earth's crust were due to the universal deluge of the Hebrew Scriptures.

Other visionary theories.

Yet various other speculations were occasionally started, indicative at least of a feeling that something more was wanted to give a consistent account of the earlier stages of the earth's formation. But these speculations were, for the most part, of a very visionary nature, and were in no degree rendered more philosophical by their admixture with the appeal to the Scripture narrative.

Instances.

Ray (1692), though professedly admitting natural causes, yet mixed up indiscriminately the conclusions of science with the authority of the Bible, and even of the Fathers of the Church.

Burnett.

We have just before alluded to T. Burnett's "Sacred Theory of the Earth" (1690), which, by its very name, betrays its nature, and presents a series

tical and irreligious kind. For a very able and elaborate refutation of these charges, the reader is referred to a paper by the Rev. S. J. Rigaud (now Bishop of Antigua), in the Memoirs of the Oxford Ashmolean Society, vol. ii.

of visionary imaginations, which he nevertheless seriously imagined gave support to the Scripture account; the strange text of Newton's comments, and the fit object of Butler's satire.

Woodward. Woodward (1695), though in many respects a rational inquirer, evinced it his chief anxiety to make every fact accord with the Mosaic narrative, which was then generally regarded as if it were intended for a precise record of physical facts.

Whiston. The extravagancies of Whiston's theory (1696), in which he labours to show that "the creation, the "deluge, and the final conflagration of Scripture are "agreeable to reason and philosophy," employing as a main agent the supposed collision with a comet, are rendered the more striking by the fact, that the man who on religious grounds could believe such *physical marvels* reconcilable to science, at the same time was nevertheless an acute critical sceptic as to *doctrinal mysteries*, and rejected the Trinity as contrary to reason!

Hutchinson and his school. And here it should not be omitted, that the original collector of the fossils on which Woodward theorised, and which form the basis of the Cambridge Museum, was John Hutchinson, who somewhat later

obtained celebrity from some singular speculations, which in truth were but the legitimate development of the principle of those just adverted to.

He had devoted himself to the study of the Hebrew Scriptures till he came to regard them as a treasure-house not only of religious, but of scientific knowledge; and as designed to reveal a complete scheme of physical philosophy; of course entirely at variance with all inductive principles, and especially with the Newtonian theory, which he pretended to refute; he published his system under the title of "Moses's Principia" (1724), and in a succession of smaller productions continued to illustrate and enforce the same ideas.

This perversion of all sound philosophy nevertheless attracted numerous disciples, including some eminent theologians of that and the following period, who were alarmed at the progress of the Newtonian views. Rejecting all independent natural science, their system of necessity discarded all natural theology, avowedly deriving the very belief in a God from revelation alone; in this particular running into the opposite extreme from the metaphysical systems of theism then so much in vogue.

The only corrective can be found in a more just appreciation of the proper provinces both of natural science and of Scripture, of reason and of faith.

Some sounder inquirers.

Yet more rational principles were in some degree recognised, in regard to the theory of the earth. Lister (1678) was perhaps the first to point out the evidence of extinction of species; in which he was followed by Hooke [1], who suggested the idea of "a chronology" derived from them. He appears to have possessed the true spirit of philosophic independence in proposing his views; yet, *to answer objections*, appealed to Scripture; though by interpretations of a very singular kind.

Other cosmical speculations.

Halley had broached somewhat bold reasonings as to the extent of the universe, and startled many minds by the announcement of his conclusion, from the distribution of the fixed stars in space, that the stellar world must be absolutely infinite.[2]

On the other hand, he had also entered on a speculation as to the supposed effect of an ethereal medium on the planetary motions, tending to contract their

[1] In 1668, but not published till in his Posthumous Works, 1705.

[2] Philos. Trans. 1720, vol. xxxi. No. 364. art. 5.

orbits; whence he concluded that these bodies would ultimately fall into the sun, and that the world must sooner or later come to an end and be destroyed; and thence argued that it also had a beginning; a point which, he observes, had not before been proved physically, and which he deemed of great importance.

These may be taken as specimens of the best cosmological speculations of the period. But on such subjects, a variety of fanciful theoretical ideas, unconnected with any real analogies or sound philosophy, long continued to engage the thoughts even of some eminent philosophers; and show the extent to which a view to ulterior results or foregone prepossessions was allowed to fetter the simple prosecution of philosophical truth. The idea of Halley, who (in accordance with Whiston) believed that the Mosaic deluge was a properly physical catastrophe, occasioned by the close approach of the same great comet which spread such terror on its return in 1680, has found advocates even in modern times. And the still grander theory of Buffon that the planets were all fragments of the sun, struck off by the collision of a comet, has been fully rivalled

by that of a more modern astronomer, who ascribed the origin of the asteroids to some inexplicable explosion of a larger planet which once occupied their place in the system. It is in the doubtful region on the outskirts of positive science that the influence of general views is often best perceptible.

Comets.

Perhaps one of the most immediately striking instances of the slow progress of true cosmical ideas has been afforded in the views entertained respecting *comets*. From the ominous dread they inspired in ancient times, as portents of coming evil, mankind seem hardly to have recovered even down to the present day. But the chief source of alarm, in later times at least, has perhaps been the belief so long kept up of their *solid* nature, doubtless derived from a very natural supposed analogy with the solid planets, and the consequent dangers of a possible collision. This terror was greatly heightened by the speculations of Newton in calculating *on this supposition* the enormous amount of the heat such bodies must acquire in their close approach to the sun, which would be sufficient to burn up the earth, if they only passed near it after their perihelion.

Comet of 1680.

The alarm rose to an awful height on the occa-

sion of the enormous comet of 1680, when Halley, after announcing that this terrific visitor was fast approaching the earth, and at one o'clock on the 11th of November, 1680, would be at about the distance of the moon; and that it must, at the very least, materially affect the seasons, and disturb the earth's orbit, and length of the year, by its vast mass, exclaims, "But may the great good God avert "a shock or contact of such great bodies moving "with such forces (which, however, is manifestly "by no means impossible), lest this most beautiful "order of things be entirely destroyed, and reduced "into its ancient chaos!" [1]

It may be easily imagined what must have been the terror excited by such fearful foreboding, so solemnly and unreservedly expressed by so acknowledged an authority. Yet, after all, this fearful body passed off without the slightest mischief or perceptible disturbance, thus positively disproving the supposition of its solidity.

Progress of cometary physics.

So again the dreadful comet of 1456, which spread such consternation over Europe, in connection with

[1] See Hind on the Comet, 1856.

the inroads of the Turks, that the Pope ordered special prayers to avert the omen, at its reappearance in 1531 was harmless; — in 1607 formed one of the first objects of study to the disciples of Galileo; — and in 1682 afforded Halley the means of calculating its orbit, and for the first time predicting its return as an obedient member of our system, — so conspicuously verified in 1758 and 1835.

The last panic, perhaps, of this kind, was that which occurred in France with respect to the comet of 1832, whose nebulosity crossed the earth's orbit. Arago with difficulty allayed these fears in a seasonable publication, which tended powerfully to diffuse more rational views.

It has required all the increasing enlightenment of observation and analogical reasoning to convince men, at the present day, that having determinate orbits, and obeying the same law of gravitation, these bodies can announce nothing but the undeviating regularity and beauty of the universal system; that all comets accurately observed have been proved to be *transparent;* that they consequently cannot be heated by the sun's rays; that having comparatively no *mass,* they can exercise no sensible attrac-

tion on the solid planets, though liable to great perturbations from them; that a collision would be unfelt; while the possible points of such collision, from the positions of the orbits, are of the most extreme rarity; and if one were to occur, the only results we could expect would be phenomena of a gaseous or *electric* kind. The progress of cometary physics affords a good exemplification of the advance from superstitious terror to the conception of cosmical order and enlightened truth.

Plurality of worlds.

Arising directly out of the extension of cosmical views, the confessedly conjectural speculation as to the existence of intelligent and spiritual inhabitants in other worlds of our system or in other stellar systems, comprehensively termed the "plurality of worlds," affords another specimen of the spirit in which discussions of topics lying on the frontiers of philosophy have been taken up.[1] The arguments of Huyghens[2] and Fontenelle in former times, and of others in later, evince the different points of view

[1] See "Unity of Worlds," Essay II.

[2] Cosmotheoros, 1698.

in which such doubtful questions will be regarded by different classes of minds. But to whatever divergence of opinion real philosophical arguments may have led different individuals, we cannot but remark on the main defect which has characterised nearly all these speculations on either side, arising from mixing them up with considerations of a kind which of necessity impaired and destroyed the *philosophical* character of the entire inquiry, which have too much pervaded nearly all the speculations on this question; unimportant, indeed, in itself, but interesting as an exemplification of the state of opinion, and the appreciation of philosophical principles. In fact, the subject is still too little regarded, simply as one of fair inductive analogy, and too exclusively with reference to its supposed bearing on theological considerations; asserted by some *because* they fancied it necessary for the vindication of the divine perfections to imagine a peopled universe; denied by others, *because* they seriously feared the Christian religion would be subverted by supposing other spiritual worlds.

The popularity acquired by Fontenelle's "Plurality of Worlds" (1685) was shared by his "History of

Oracles" (1687), which has been regarded[1] as an evidence of advancing freedom of opinion. The oracles of antiquity, in particular, are examined by him with more severe and enlightened criticism than had hitherto been employed, unless by Van Dale (from whom he borrowed), and who had previously ventured so far as to set them down as mere human impostures, instead of demoniacal delusions, as had been the more orthodox belief.

Philosophy of Locke.

The great intellectual impulse excited by the discoveries of Newton extended itself in different ways to all the thinking minds of the age,—to none more earnestly or fully than to that of his friend Locke: and though the bent of his genius lay in another direction, yet the influence of the emancipating and renovating principle of the physical movement,—"the new philosophy," — was preeminently shown in the positive and definite character of Locke's researches, and more emphatically in the power with which he cleared away the rubbish of the old mystical metaphysical notions of innate ideas and other kindred conceits. This alone was in itself a grand

[1] See Hallam's "Lit. of Europe," iv. 503.

step towards a more distinct and comprehensive philosophy; and the modes of thought thus inculcated would react upon physical and cosmical speculation, though the state of knowledge was not as yet quite ripe for their full application.

Yet, as to the relative advance of physical as compared with metaphysical, philosophy, the state of Locke's own opinions is instructive when he came to speculate on higher subjects. His anxiety to prove the credibility of Christianity[1] by making out its conformity to human reason, and his continual endeavour to explain away what is mysterious in *doctrine*, contrast strongly with the brief and summary manner in which he discusses *miracles*[2], manifestly ignoring any connection of the subject with higher physical views.

Contrast of the metaphysical and physical spirit.

In truth, notwithstanding the grand physical advances of the seventeenth century, and the general intellectual movement which could not fail to be in some degree consequent upon it, neither that age, nor even a great part of the next, was by any means

[1] See his "Reasonableness of Christianity," 1695.

[2] Essay, bk. i. ch. xvi. § 13.

as yet entirely emancipated from the mystical and metaphysical character, which a later school regards as a necessary preliminary phase to the more "positive" spirit of a purely physical philosophy.

As bearing on natural theology.

Thus, in relation and coordination with the *philosophy*, the *natural theology* of that period was of the abstract and *à priori* cast, typified in the writings of Locke, S. Clarke, Cudworth, and Wollaston, who, setting out from high abstruse first principles, attempted a deductive system of technical and formal propositions, embodying precise views of the divine nature and attributes, and thence the moral scheme of man's relation to his Creator, and of his condition in this life to that in another.

When a *physico*-theology, in its more proper sense, was attempted, it consisted wholly in following out in nature proofs, confirmations, and illustrations of the Divine perfections *previously assumed*, instead of attempting to *deduce* the latter from the former. Such was the line of argument of Boyle, Ray, and Derham, as it has since been that of the most generally popular writers on the subject; the safest course, undoubtedly, however defective in a *philosophical* sense; and even when they have attempted

a more strictly *à posteriori* line of argument from design and final causes, they still occasionally betray the lingering dominion of systematic prepossessions, or else are constrained to fall back on popular belief and the common religious sense of mankind, on which, of course, there can be no dispute.

ıs bearing n higher octrines.

Nothing can more clearly exemplify the philosophical animus of a less advanced age than the prevalent subordination of the positive physical element to the ideal and metaphysical; when spiritual and invisible things essentially inscrutable to reason become subjects of eager controversy and cavil, while the study of the sensible world, the proper subject of human intellect, is disregarded, and its higher bearings unperceived.

Thus, under such a system, dogmatic views of the nature and mode of the Divine existence became topics of serious difficulty and dispute, while the grand conception of universal physical order and its sublime consequences was little appreciated; and the idea of suspensions of natural laws and contradictions to physical truth passed unchallenged, especially when associated with points of religious belief. Faith was made matter of logic, while science was to be

squared to a conformity with revelation. Spiritual mysteries were made subjects of scepticism, physical marvels the essence of religion.

It was probably against the tendency to scepticism, on points beyond all rational investigation, that the celebrated argument of Bishop Berkeley's "Analyst" (1734) was directed, as urging the inconsistency of some men of science of that day, who objected to mysteries in religion, yet accepted without question "the mysteries of the fine and abstruse geometry,"[1] as they were then obscurely and insufficiently expounded. Upon the defects of the demonstrations then given, Berkeley's argument was triumphantly raised. Now that the subject has been fully analysed, and the foundations of the infinitesimal calculus have been clearly explained, this argument has indeed become inapplicable; but it may still suggest better discrimination as to those topics which are legitimate matters for the investigation of reason, and those which belong to a different order of conceptions. The "Analyst."

It was very long, in fact, before philosophy could

[1] He recurs briefly to the same idea in a note in the "Siris," p. 130.

effectually cast off the remains of the old scholastic tone of thought, which led to a spirit of syllogising upon points of *religious doctrine*, as if they were real tangible objects, within the grasp of the reasoning faculties, while, on the other hand, by a strange perversity, higher *physical* generalisations and contemplations were thought presumptuous and profane. Thus, the considerations of the grander bearings of cosmical theory were unperceived, and any philosophic discussion of alleged interruptions of natural order was altogether beyond the apprehension even of many to whose speculations it might have been supposed congenial.

Deists of the 17th century.

If anywhere we might perhaps expect some indications of a disposition to discuss such topics, under the influence of the advancing philosophy among the professed "Free-thinkers" and the Deists of the seventeenth and early part of the eighteenth centuries. But the tenour of their writings is for the most part of a kind entirely different from any enlarged philosophical and especially physical speculation.

Tindal argued wholly on moral and critical grounds, in his attempt to make out that Christianity was "as

old as the creation," and nothing more than a republication of the law of nature; as did also Toland, in endeavouring to reduce its peculiar doctrines to mere general truths of reason and morals:—but with little or no reference to miracles. Collins attacked prophecy as containing no proper predictions; and the appeal to it as being only arbitrary adaptations of passages to the events of Christianity. Morgan and Chubb, from the handle given by the puritanical confusion of Christianity with Judaism, rejected the former along with the latter. Bolingbroke, professing to purify religion from its corruptions, reduced it to a mere shadow of Deism, or something less. Shaftesbury assailed the alleged interested nature of religious motives as connected with future retribution, as well as other points of belief, with refined satire; as did Mandeville and others with coarser and more offensive scoffing.

Unphilosophical views of sceptics.

The low and unscientific views of this class of writers, and indeed of the age, when they touched on the subject of the supernatural, may be exemplified in the instance of Blount, who, in order to decry Christianity, endeavoured to revive the credit of the miracles of Apollonius of Tyana as superior to those

of Christ! while Chubb argued rather against points of *evidence* than on any higher ground.

But it is not in polemical attacks on religion, like those just referred to, nor indeed in any controversy of the kind, that we can look for a worthy and candid discussion of a wide and delicate philosophical question.

The school of writers just glanced at have, indeed, now, for the most part, been deservedly forgotten; they are here alluded to only to show how little direct connection the sceptical speculations of that period had with the progress of physical science, a topic equally unnoticed in the replies of the advocates of revelation in that age[1], clearly showing that it was never agitated.

Slow advance of the idea of order.

It is an indication of the very slow advance of true conceptions of the universality of physical order, that even the acute author of the "Characteristics"[2] should notice as an argument on the atheistic side worthy of mention, the allegation of some persons that all order and design might be limited to the

[1] As, *e. g.* Leslie's "Short and Easy Method with Deists," 1694.

[2] Vol. ii. p. 298. (1699.)

minute speck in the universe to which our actual knowledge is confined, and which they imagined might be wholly exceptional in its constitution, while on every side around nothing but blind chance, total anarchy, and eternal chaos might prevail, without any trace of law or mind. Even professed Atheists, at the present day, would reject so unphilosophical an idea with contempt.

Bishop Berkeley.

And here we cannot omit to recognise one of the most remarkable instances of philosophical genius perhaps of any age, in a writer already cited, Berkeley, Bishop of Cloyne. Without pretending to dwell on the vast questions of materialism or idealism, or the other profound metaphysical and psychological inquiries, for which he is so justly celebrated [1], in connection with the present subject it can only be remarked that his elevated speculations in general, as well as his more precise controversial discussions, were well calculated to meet the metaphysical spirit of his time, in reference to the grander questions of religious belief; though they would

[1] Principles of Human Knowledge, 1710; Dialogues of Hylas and Philonous, 1713; Alciphron, or the Minute Philosopher, 1732; Siris, a Discourse on Tar Water, 1744, enlarged 1752.

appear to have little bearing on any physical consequences, or with those invariable *relations* of matter which are the sole objects of positive science, and are still the same, in whatever sense its *existence* be defined. The laws of matter remain, though matter itself disappear from our view. The laws of nature are laws of reason and mind.

His physical views.

Of Bishop Berkeley's *physical* views, perhaps the clearest idea may be formed from the celebrated "Siris," in which, commencing from a plain practical recommendation of the virtues of tar-water, which he believed peculiarly efficacious in the cure of a vast variety of diseases, he by no violent transition digresses to the constitution of man, to the reciprocal influence of body and mind; and from the operation of medicines to the chemical theories of his day; whence the principles of "fire, spirit, or æther," are discussed according to the doctrines of the ancient philosophers; and in connection with the modern views (alluding specially to Newton) the "luminous æther" is made the source of light and of vitality.

His varied and discursive remarks bear on nearly all points of physical philosophy as then pursued:

the nature of motion [1], attraction, repulsion, and other modes of action affecting matter. But what chiefly concerns our present purpose is to remark the very distinct references he makes, in several places, to the great principles of *natural order*, and to the *inference of presiding intelligence*. He repudiates the notions of fate and chance [2], and enlarges on the idea of a soul pervading nature [3], carefully drawing distinctions in order to avoid Pantheism.[4] A few extracts will best exhibit his views on these points. Thus he observes [5]:

Order in nature and inference from it.

"Mechanical laws of nature or motion direct us "how to act and teach us what to expect. Where in- "tellect presides there will be method and order; and "therefore rules;—which, if not stated and constant, "would cease to be rules. There is a constancy in all "things, which is styled the course of nature." . . .

Again:

"There is a certain analogy, constancy, and uni- "formity in the phenomena or appearances of nature "which are a foundation for general rules; and these

[1] Also discussed in his very early treatise. "De Motu," &c.
[2] Siris, p. 130.
[3] Ibid. p. 138.
[4] Ibid. p. 289.
[5] Ibid. p. 109, § 234.

"are a grammar for the understanding of nature, or "that series of effects in the visible world whereby we "are enabled to foresee what will come to pass in the "natural course of things."[1]

And yet more precisely as to the inference[2]:—

"The order and course of things and the experi- "ments we daily make shew there is a mind that go- "verns and actuates this mundane system, as the pro- "per real agent and cause; the inferior instrumental "cause is pure æther, fire, or the substance of light."

Indeed, the unity of view in which Berkeley, in this work, invests physical truth, has led a recent writer (who seems thoroughly to have imbibed his spirit) to speak of the "Siris" as a work which "might properly have been entitled 'Cosmos,' for "it is a survey, comprehensive and rapid, yet discrimi- "native, of the characteristics of intellectuality im- "pressed upon the great and the minute in the pro- "ceedings of nature; and this not especially with "reference to final causes, which may be imagined "without being real, but by demonstrating the reality "of characteristics which are simultaneous with, and

[1] Siris, p. 120, § 252.

[2] Ibid. p. 70, § 154.

"involved in, every process and result, and absolutely "present before us."[1]

Among other theological writers, some advance towards a recognition of the grand idea of *natural order*, and its consequences, may be traced in the early part of the eighteenth century. Thus W. Wollaston (an ancestor, it is believed, of the celebrated physicist of our time), in his "Religion of "Nature Delineated" (1726)[2], threw out some hints towards viewing alleged instances of Divine interposition, as not being arbitrary interruptions of nature but regular parts of some greater system. Wollaston

But in a far higher degree, though not professedly directed to the cultivation of physical science, the acute and comprehensive mind of Bishop Butler owned the influence of its advance. The argument of the celebrated "Analogy" (1736) implies, from its very design, a considerable reference to the study of the natural world; and, in fact, the author evinces a far wider grasp of the general scope of physical philosophy than was at all approached by any of the theological Bishop Butler.

[1] Egeria, by B. Dockray, i. 284, London, 1857.

[2] § 5, p. 103.

writers of his day except Berkeley. His notion of the extent of natural order, and the *real* subjection of *all* events to *laws*, however unknown to us [1], is remarkable for that age, and instructive to the present.

More particularly, he observes, that we know some of the general laws of matter; but of many phenomena, as earthquakes, storms, famines, pestilences, and the like, we know nothing of the laws: "So "that they are called accidental, though all reason- "able men know certainly that there cannot in "reality be any such thing as chance, and conclude "that the things which have this appearance are "the result of general laws and may be reduced "into them."

Our *actual* knowledge of the laws of nature extends but a little way, "it is only from analogy that "we conclude the whole of it to be capable of being "reduced into them."

Setting out from the assumption of Theistic views, Butler's defence of Revelation and miracles refers to the analogy between them and the ordinary provi-

[1] Analogy, part II. chap. iv. § 3.

dential government of the world; so that *objections* against the one apply equally to the others.

Yet we cannot but notice that the argument turns upon a singular kind of distinction, which could not now be sustained, between "common" and "extraordinary" natural phenomena; representing, for example, comets, and electric or magnetic phenomena, as if *exceptional* parts of astronomy or of physics, instead of being intimately bound up by continuity with their most essential principles, as they are now seen to be.[1]

Views of the supernatural.

The view entertained of supernatural interposition, if understood as implying suspensions of natural laws, regarded as an abstract philosophical question, must depend wholly on the progress of ideas respecting the universal order and dependence of physical causes.

Some discussions bearing on this subject were pursued by writers in the early part of the eighteenth century, who do not appear to have been directly influenced by physical conceptions, but took up their respective views rather on more restricted grounds of a critical or theological kind.

[1] Analogy, p. 233, ed. 1807.

oolston. In this class may be reckoned Woolston[1], who interpreted the Gospel miracles as not being real occurrences, but allegorical representations of the Christian doctrines,—the precursor of the mythic theory of Strauss.

Middleton. About the same time, Dr. Conyers Middleton, in his "Letter from Rome" (1729) attacked the miraculous pretensions of the Roman Catholic Church, and thus found himself involved in a much wider argument; so that Protestant theologians took alarm. And afterwards, from his "Introductory Discourse," followed by his larger work, "A Free Enquiry into Miraculous Powers, &c." (1749), he was accused of impugning Christianity altogether, a charge against which he repeatedly protested. As to the nature of the grounds on which he proceeded, his inquiry is mainly directed to the mere details of *testimony*, to the *nature* of the alleged marvels, and the *character* of their advocates; all which he rejects as unworthy of credit, though he observes, "that God can work

[1] Six Discourses on the Miracles of Christ, published successively (1727—29) by T. Woolston, B.D., sometime Fellow of Sidney College, Cambridge.

"miracles when He pleases, I dare say none will "deny."[1]

In some respects, however, he appears to adopt wider and more philosophical grounds of criticism, as when he observes, "the testimony of facts, as offered to "our senses in this wonderful fabrick and constitution "of worldly things, may be properly called the tes- "timony of God himself, ...;"[2] and contends that we must take this as our guiding principle in judging of the credibility of miracles; which he further explains by remarking, that the inquirer, "by accustoming "his mind to these sublime reflexions, will be pre- "pared to determine whether those miraculous inter- "positions so confidently affirmed to us by the primi- "tive fathers, can reasonably be thought to make a "part in the grand scheme of the divine administra- "tion, or whether it be a truth that God, who created "all things by His will, and can give them what turn "He pleases by the same will," should work such low and unworthy prodigies as the author represents those of the ecclesiastical writers to have been.[3]

[1] Vindication of the Free Enquiry, p. 33, 1751.

[2] Free Enquiry, pref. p. x.

[3] Vindication of Free Enquiry, p. 8.

This is not the place to enter on criticism; but it is within the scope of our present object to remark that the turn thus given to the argument is far from that which the true *cosmical* principle would suggest, while the ground assumed is one which must appear of rather a hazardous nature, as the argument might easily be pushed farther than was probably contemplated.

Hume.

The progress of ideas on this very important question, would here bring us, by natural connection, as well as in order of time, to the celebrated speculations of Hume (1752) and the controversies which have arisen out of them. The principles thus involved will in fact form the direct subject of a future Essay. With reference to the present purpose it is only desirable here to observe, that in the speculations of Hume we still hardly trace a clear and commanding conception of *physical* order and law, as the real basis of all discussion of such subjects. He continually intermixes and confuses the consideration of *testimony* in *human affairs* with that applying to *physical phenomena*, and loses sight of the distinction between physical and moral possibility, between credibility in cases involving the laws of matter and

Defective physical views.

those depending on moral volition; while his continual adoption of a sarcastic, and too often an offensive, tone, derogates greatly from the purely abstract and dispassionate character which ought to distinguish a high philosophical discussion.[1]

In another part of his writings, Hume also discussed the common argument from design, objecting to the inference, that from supposing an artificer in human works, a like conclusion holds in respect to the origin of the universe.[2] But the entire argument had not at that period received the extension it can only attain from the true conception of universal order, as the correlative, almost the synonym, of universal mind.[3]

[1] As an instance of the confined notions of Hume on physical subjects (in some measure those of his day), we may notice the example which he introduces of the imagined occurrence of a darkness over all the earth for the first week of 1600. If sufficiently attested, he justly observes, philosophers ought, instead of doubting, to accept the fact, and investigate the cause; but the reason he assigns is as follows: "For the decay, corruption, and dissolution of nature is an event "rendered probable by so many analogies that any phenomenon which "seems to have a tendency towards that catastrophe comes within the "reach of human testimony, if that testimony be very extensive and "uniform." — *Essays*, vol. ii. p. 134, ed. 1800.

[2] Dialogue concerning Natural Religion, Works, vol. ii. p. 446.

[3] See "Oxford Essays," Essay v. p. 185, 1857.

Doctrine of causation.

There is, however, another point in the speculations of Hume to which we can refer with far higher satisfaction, and which has a direct bearing on the entire view of physical philosophy:—his masterly analysis of the doctrine of causation in his "Essay on Necessary Connection." In this celebrated discussion he completely demolished the ancient mystical idea of an efficient power or energy existing in one physical fact, mode of action, or combination of conditions, to bring about or produce another; and contended with unanswerable force that all we can affirm is the invariable sequence of the one fact upon the other.

The announcement of this great principle was of a magnitude commensurate with Locke's demolition of innate ideas, and like it marks an epoch in the history of philosophy. Yet that this view was taken up on somewhat limited grounds, and has appeared to require extension in its conditions, is no disparagement to its validity as an essential principle, and as clearing the ground for all positive physical philosophy.[1] It has of course been vehemently assailed by

[1] See "Unity of Worlds," Essay I. § IV.

some, and accepted with such modifications by others of later metaphysical schools, that in their hands the subject has retrograded almost to its original mysticism. I have elsewhere endeavoured to give this doctrine that slight modification which alone it seems to require in order to vindicate its true application to philosophy; the true "necessary connection," in law and reason,—the subordination of effect to cause, —in the higher degree of *generality* of successively more comprehensive physical principles.

§ IV. — THE PERIOD FROM LAPLACE TO THE PRESENT TIMES.

Idea of Cosmos from the Newtonian discoveries.

IN the age of Newton it may be truly said the great principle of cosmical order and unity of worlds could by no means be held to have been completely *established* or *demonstrated*, however perceptible to the eye of philosophical analogy. The broad idea might have been seized upon by some few of great comprehensive and contemplative genius; but the full development and detailed *proof* of the truth could not be said to have been attained or accomplished, even in regard to our system, till the researches of Clairault had removed the obvious outstanding difficulties of the lunar theory; and the grand truths deduced theoretically from one and the same great principle of gravitation, announced by Laplace and Lagrange, had reduced the planetary inequalities to fixed order; and by demonstrating that they must be all periodical,

Stability of the planetary system.

assured the perpetual stability of the system, so that its very irregularities are all regular; its aberrations recur in successive cycles, its deviations are but oscillations, — "Immense pendulums of eternity," says Pontecoulant, "which beat ages as ours beat "seconds!"

The great importance of the discovery of the "stability of the solar system" cannot be too highly estimated, whether in regard to its scientific magnitude and difficulty, or to its essential bearing on the principle of "Cosmos," from the disastrous consequences which would result from the accumulative effects of secular (or non-periodic) irregularities. I cannot better sum up the subject than in the concluding words of a passage in which the first historian of astronomy in our age gives the most condensed, yet luminous, — detailed and masterly, — yet clear and popular, abstract of the entire investigation: "The "laws which thus regulate the eccentricities and incli- "nations of the planetary orbits, combined with the "invariability of the mean distances, secure the per- "manence of the solar system throughout an indefi- "nite lapse of ages, and offer to us an impressive indi- "cation of the supreme intelligence which presides

" over nature, and perpetuates her beneficent arrange-
" ments." [1]

French philosophy and scepticism.

The great and rapid advances made in the mathematical and physical sciences in France, during the latter part of the eighteenth and beginning of the present century, have been universally acknowledged. But it was also notoriously the fact that almost simultaneously an extensive profession of scepticism in religion, and even of atheism, took place in that country. It is, however, abundantly evident that the great majority of those writers who advocated irreligious principles were not mathematicians or physical philosophers, but men of literature, metaphysicians and politicians. Nevertheless it has been the practice with some parties indiscriminately to set down all the astronomers and men of science in France as Atheists, and to allege as the ground that in their mathematical and scientific writings they *omitted* all reference to theological considerations,—a charge to which its absurdity affords a sufficient reply.

[1] Grant's "History of Physical Astronomy," London, 1852, p. 56. I am glad to take this opportunity of acknowledging how much I am indebted to this masterly work in many parts of the present sketch.

Omission of final causes no defect in science.

A scientific treatise on any branch, even if it be one which affords the most striking evidences of order and design, is perfectly complete without alluding to that inference; and when the reader cannot but make that inference it is infinitely stronger in proportion as it does not appear to have been specially contemplated in the method of argument, or urged upon him by the author.

The French writers on science have been remarkable for preserving clearly and justly this division and distinction of departments. And when we add the consideration that most of these works were produced under the profession of the Roman Catholic faith, which has always reposed on a basis independent of reasoning or evidence, — which it even repudiates as inevitably leading to unbelief, — we have a sufficient explanation (were it needed) of the omission of reflections or arguments of a theological kind in works devoted to mathematical and astronomical calculation or physical research. It has been a peculiarly *protestant* prejudice to be everywhere looking for arguments and proofs in support of faith; and might easily be construed into a confession of its weakness.

Views of Laplace.

To take a single instance:—Laplace has been commented on with a marked expression of regret (in the review of his great work by Playfair[1]) because in expounding the grand principle of the stability of the planetary system, and the remarkable combinations of conditions in the orbits and masses, on which it depends, he did not make the slightest reference to *final causes*;—"the only blemish," the critic observes, "we have to remark in his admirable work." The omission, he admits, might have arisen from supposed irrelevancy to the immediate subject, or the like motives; but he adds his own conviction that it would have been but a legitimate subject of inquiry, as to these conditions, "whether any ex-"planation of them can be given, and whether, if "not referable to a mechanical cause, they may not "be ascribed to intelligence."

Final causes.

This sentence exhibits at once a proof of the depth of the impression alluded to even in such a mind as that of Playfair; and an indication of the influence of what, in the present state of the inquiry, must be seen to be merely the old and narrow prejudice of opposing

[1] Playfair's Works, iv. 319; or Edinb. Rev. vol. xi. 1808.

mechanical causes to *intelligence.* If the arrangements alluded to could be shown to be the results of still higher mechanical causes, it would but furnish a still higher proof of intelligence instead of being *antagonistic* to it; *mechanism* is the very exponent of *mind.* It has been so often repeated as to be generally believed that this omission of reference to Divine design in the work of Laplace was objected by Napoleon to the author; who simply replied, "I had no need to adopt that hypothesis;" in fact the most truly philosophical answer, since to adopt it would have been preposterously to found science on faith.

Testimony and the supernatural.

Laplace in his "Essai Philosophique sur les Probabilités" (1795) has entered at large into the discussion of *testimony* as applied to extraordinary and supposed supernatural events. The calculation of the value of testimony as an abstract point, is of course easily reducible to mathematical expressions. It is, however, only in reference to the consideration of alleged events so intrinsically improbable that no testimony can counterbalance their abstract incredibility, that he refers incidentally to the constancy of the laws of nature as a paramount law of belief.[1] He

[1] Essai, &c. p. 76, ed. 1814.

afterwards instances the miracles of the holy thorn at Port Royal, and laments the credulity of such men as Racine and Pascal in asserting them; and of Locke in maintaining generally, supernatural interposition, when he believed the necessity for it would render it credible.

He goes into some other considerations as to the necessary weakening of all testimony and destruction of records with the progress of *time*, and mentions the singular conclusion of the able but eccentric English mathematician Craig [1], who, in applying calculation to the evidences of Christianity, inferred that the world would end when the probability of the truth of Christianity should in this way become exhausted as it were by old age, a period which his calculation fixes in A.D. 3150.

In Laplace's views it is remarkable how entirely the calculating mind of the great mathematician fixes itself almost exclusively on the *value of testimony*. He does not put forth in due prominence the broad principle of universal order and physical constancy, which afford so far higher a ground from whence to

[1] Essai, &c. p. 85. His singular work is entitled "Theologiæ Christianæ Principia Mathematica," 1699.

view the whole question; a principle which he had himself borne so conspicuous a share in establishing, and of which the same essay[1] contains some remarkable illustrations in sketches of his cosmical speculations. The motions of all the planets, rings, and satellites (those of Uranus being then undetermined), both orbital and rotatory, in one direction, and nearly in one plane, and with orbits of very small eccentricity, compared especially with the case of comets, where opposite conditions prevail, form a continuous system of effects, which could only be due to one distinct primitive cause.

Nebular theory.

Hence he reasoned, especially from the combined considerations of the nebulous zodiacal light mass, and the internal heat of the earth, to the conception of the nebular theory, and the idea that in the process of consolidation the common impulse may have been communicated. Such an hypothesis, however conjectural, was of course set down by many as nothing less than a deliberate system of atheism.

In like manner it has been generally stated that many of the other eminent French astronomers,

[1] Essai, &c. p. 118, ed. 1814; more fully in his "Expos. du Système du Monde."

mathematicians, and physicists, about the period in question, adopted irreligious views;—in many instances, on little evidence beyond such as has been just described.

Yet, in some cases, the charge was certainly better justified. The astronomer Lalande is said to have declared that in the heavens he could find no trace of a Deity;—though this is after all no more than has been asserted by many theologians.[1]

Lalande was, however, undeniably the friend and associate of Voltaire; and with other men of science joined in the work of the celebrated "Encyclopedia," among whom one of the most eminent was D'Alembert.

D'Alembert.

The indications which this transcendent mathematician gave of his sceptical views in religion, appear almost entirely in his correspondence; and they would seem to have been rather of that class dependent on general estimation of moral evidence than on any positive physical generalisation. His intimate friend, the Abbé La Harpe, has described his ideas summarily by saying, "He only thought

[1] See "Oxford Essays," No. v. 1857.

"the probabilities were in favour of theism, and "against revelation. . . . He tolerated all opinions; "and this disposition made him think the intolerable "arrogance of the atheists odious and unbearable. "I do not think he ever printed a sentence which "marks either hatred or contempt of religion."

But we must fairly view the opinions of such men on theological subjects as having been framed with reference to the narrow dogmatic creed professed among their contemporaries, and under a dominant ecclesiastical system, against which they felt a not unreasonable hostility, and as having probably little relation to any higher conceptions.

At this particular conjuncture too there were other and far more stirring causes in operation to produce a violent revulsion of opinions than those merely due to calm philosophical speculation, and into the vortex of which men of science were sometimes drawn rather in spite of their philosophy than in consequence of it.

Indirect influence of physical views.

The indirect influence of advancing conceptions of the grand principle of the uniformity of nature, and the indissoluble chain of physical causes, has manifested itself occasionally in more enlarged minds not

habitually directed to physical pursuits; and when we find indications of such ideas in the writings of a classical and philosophical historian, we may nevertheless regret a tendency not sufficiently to discriminate between the legitimate view of physical order and the independence of spiritual truth, which, indeed, the accepted theology of past ages tended to confound together.

Gibbon.

The following expressions of Gibbon will exemplify this remark: — "The *laws of nature* were frequently suspended for the benefit of the Church."[1] He also observes in another place, "In modern times a latent, "and even involuntary, scepticism adheres to the "most pious dispositions. Their admission of *super-* "*natural truths* is much less an active consent than a "cold and passive obedience. Accustomed long since "to observe and to respect the *invariable order of* "*nature*, our reason, or at least our imagination, is "not sufficiently prepared to sustain the visible action "of the Deity."[2]

These expressions, while they convey philosophical convictions of physical causation, imply a want of

[1] Decline and Fall, ch. xv. vol. ii. p. 194, ed. 1825.

[2] Ibid. p. 147.

clear discrimination between "supernatural *truths*" of the spiritual world, and alleged supernatural *events* in the material, — which are wholly distinct.

Progress of cosmical views.

The beginning of the present century (as before noticed) witnessed the completion of the triumph of the system of gravitation in solving and reconciling all the seeming anomalies and outstanding difficulties of the lunar and planetary motions, consummated at the present day, in regard to those of Uranus, by the discovery of an exterior disturbing planet, predicted by the calculations of Leverrier and Adams, and verified by the telescopes of Gallé and Challis. More minute supplementary enlargements in the details of mutual attractions are still from time to time demanded, as new and minute inequalities are detected, and both observation and theory go on hand in hand continually increasing in precision of detail and amplification of developement, in that perfect accordance which can alone spring from real sources profoundly seated in the nature of things.

Extension of gravitation.

To these must be added the extension of the order of our system by the discovery of new members all obedient to its one law,—satellites of Neptune, Saturn, and Uranus, observed by Lassell and Bond; the

whole ring of planetoids circulating in what may truly be called a nebulous mass between the orbits of Jupiter and Mars, all controlled by gravitation: — now also proved to extend even to the incalculably remote systems of double and multiple stars; and probably also influencing the motion of the component parts of nebulæ, surmised from their spiral forms exhibited by the gigantic reflector of Lord Rosse; and exemplified in our own region by the motion of our sun with his attendant system, doubtless orbital, among the fixed stars, the members of our cluster, — a revolution in which those other members all very probably partake.

Terrestrial physics.

On our own globe, again, that amid the immense complication of conditions which affect the tides, many local points in their theory are as yet incomplete, can neither excite surprise, nor sanction any doubt of the principle.

Besides these grand mechanical laws and theories, there are wide fields of inquiry of a more purely physical kind, to which increasing attention is continually being devoted, giving rise to an immense multiplication of new investigations, and even of entire new departments of experimental inquiry.

The first positive physical evidence of the orbital motion of the earth (from which its rotation is a consequence), obtained from the discovery of the aberration of light of the stars (due to that motion combined with the progressive propagation of light) by Bradley (1727), has been followed out in our own day by the mechanical proofs of its rotation furnished by the ingenious experiments of Foucault (1850–54.)

Connection and continuity of sciences.

But in a more extended degree it has been reserved to our own times to connect the properly mechanical views, which reach to the remotest regions of the visible universe, with the study of the physical agencies at work within the range of our experimental knowledge; to prove the propagation of light from the depths of space to our organs by an unvaried succession of inconceivably minute vibrations with direct physical evidence of its velocity; the electricity of comets; the magnetic influence of the sun; to carry out the vast range of investigations belonging to terrestrial and atmospheric physics, by which even storms are beginning to be reduced to law; above all, to evince the continuity of physical causes through the expanse of past time by geological

research; as through the immensity of space by the extension of stellar and nebular astronomy; through the minutest forms of life by microscopic animalcular physiology; and through subdivisions infinitely smaller in the system of atoms, invisible to any microscope by following out the laws of chemical combination.

Chemistry and Alchemy.

Chemistry undeniably took its rise out of the labours of the alchemists. Some very rational philosophers have maintained, on sound principles, the possibility of a change of properties, when so closely allied as those which distinguish the metals. But alchemy was essentially mystical: and the objection to it was not that (like the attempts at perpetual motion) it aimed at an *object*, in itself physically absurd or impossible, but that it sought that object by *means* alien from those of any sound principles of science: it looked to secrets hidden from all but favoured adepts; it appealed to means of success connected with the invisible and supernatural; it hoped to accomplish the discovery of truths in nature by talismanic agency beyond nature, and to acquire a dominion over matter by the interposition of spirit.

Hence the incompatibility of such pursuits with real physical progress.

But even after chemistry had emerged from the dreams of the alchemists, and the ineffectual accumulations of the empirics, in one of its earlier phases, the theory of Phlogiston furnishes a further exemplification of the predominance of mysticism. And when eminent men on either side disputed the question, the point peculiarly to be noticed was the fundamental deficiency of any idea of *what* Phlogiston *was supposed to be.* We *properly* talk of electricity, of gravitation, or even of æther, as physical agents, whose nature is indeed unknown, but which are precisely definable in their effects; but Phlogiston, no one of its advocates could define even by its properties. It was simply an instance of the lingering dominion of mysticism over science, which the progress of induction was not yet sufficiently developed to cast off. Phlogiston.

In connection with chemistry, we cannot omit the name of Priestley, who was at once one of the most distinguished extenders of the boundaries of the science, and also remarkable for the boldness of his theological opinions. His intellectual character was, however, marked by extraordinary singularity and Priestley.

inconsistency:—"nemo unquam sic impar sibi," may with truth be applied to him. His science appears to have been as little consistent with itself as his theology. He made the grandest advances in pneumatic chemistry, and may be said even to have created the science,—yet he firmly believed in Phlogiston and upheld it against advancing evidence.

In theology,—he attacked Gibbon, and denounced Hume, with the most orthodox animosity as the champion of Christianity, while he disowned most of its received doctrines; he believed in prophecies but rejected mysteries; he saw in the events of modern Europe the fulfilment of the predictions of the Old Testament, yet explained away the doctrines of the New; he rejected the divinity of Christ, yet devoutly expected his real bodily return to reign on earth [1]; such incoherencies of genius are, however, always instructive.

Origin of geology.

We before noticed the degree to which the speculations of antiquity, relative to geological or cosmogonical questions, were mixed up with mythological

[1] See Lord Brougham's "Lives of Men of Literature and Science," pp. 413, 419, 423.

visions. And it has been seen to how great an extent, even in more modern times, the whole progress of investigation on this subject has been beset by hindrances, arising out of theological views; rather, we might almost say, the science of geology has emanated out of certain points of theological belief, for which men thought they had found proofs in physical facts which, however, they had entirely misinterpreted. By slow degrees, and in full and constant antagonism to such prepossessions, has the free and real interpretation of those facts struggled and fought its way to acceptance.

Mystical views.

In earlier times, the few bolder inquirers who ventured to use their own understanding, and to appeal independently to inductive evidence, yet always thought it necessary to pay homage to the prejudices of the day, by assuming a tone of apologetic respect; while the many who pursued such speculations did so solely in a spirit of entire subserviency to the received creed, and on the avowed principle of valuing every discovery as it seemed to support that creed, and suppressing or distorting it if it seemed of contrary tendency. We have before adverted to some instances of this kind; but among

these we have also acknowledged the more independent researches of a few. Thus, following in the steps of Lister, Hooke, and Leibnitz, we find at a later period Michell, and some few others, but more pre-eminently Hutton, standing forth on the same high philosophical ground. Such men, labouring on such principles, could not fail to encounter the full force of hostile prejudice which was engendered by the continual existence of the same bigoted spirit under Protestantism which had displayed itself under Romanism; with only this difference, that in the former case it is more inexcusable, as being more preposterously inconsistent with a system wholly founded on free inquiry. The Romanists opposed the motion of the earth as contrary to the dogma of an infallible Church; the Protestants denounced its antiquity as contrary to the infallibility of the Hebrew Scriptures. In neither case, however, could these erroneous ideas be dispelled but by the advance of better perceptions of the distinct nature, provinces and objects of science and of Christianity, of physical and of spiritual truth.

English geological writers.

It is, however, undeniable that by far the greater body of English writers on these subjects, even down

to our own times, when they did enter on any real physical investigation, evinced a complete subserviency to theological ideas, though framing hypotheses, or even professedly investigating facts on principles supposed to be philosophical. They assumed the Scripture narrative as literal revealed truth, and then sought confirmation of it in natural facts; while yet they would only allow those facts to be interpreted in conformity to Scripture! Yet such has been the infatuation from the days of Whiston and Catcott down to those who in more recent times have cultivated geology on principles which they founded on *faith* and yet called them *science*.

Pure inductive principles of foreign geologists

The evidence of the true influence and progress of philosophical principles in this grand department of science—grand in itself—but more transcendently so in relation to the "Cosmos," as carrying back the dominion of physical law through the abysses of past time,—in its earlier stages, was found where perhaps we might least have looked for it—among the Italian writers. The mantle of Galileo descended in some measure on Vallisneri and Moro, and more amply on Generelli, though a Carmelite monk. The two former adopted perfectly rational theories, as far as

they went, of the causes of geological phenomena as then known (1721—1746). Yet Moro tried to adapt his views to the six days, but Generelli's "Illustrations of Moro" (1749) display the true philosophic spirit. He protests, in the first instance, against the introduction of supernatural agency, and undertakes to explain the phenomena "without violence, "without fiction, without hypothesis, and without "miracles." [1]

How these Italian philosophers escaped the Inquisition it is difficult to imagine, especially as the far less bold speculations of Buffon brought down on him the visitation of the Sorbonne, and necessitated a recantation.

Recent influence on the English school.

However, we here perceive perhaps the first great advance in true philosophical ideas of geology, and the anticipation and prototype of the real inductive independent views of Hutton, and Lyell, under the vivifying influence of whose principles the English school of geologists is but now beginning to cast off the lingering remnants of its hereditary bondage to mystical paroxysms, occasional recurrences of chaos

[1] See Lyell's "Principles of Geology," ch. ii.

and creation, subversions and renewals of the order of nature, and miraculous originations of new species out of nothing: — In a word, the spirit of invoking the supernatural to cover our ignorance of natural causes, and then ungratefully discarding its aid whenever natural causes are found sufficient.

Such tendencies in English cultivators of science their continental fellow-labourers have been too polite to ridicule otherwise than by justly boasting their own freedom from "semitic influences."

But so wide has the diffusion of a knowledge of geology now become, that the juster view of the case is beginning to be extensively appreciated, and perhaps even more eagerly taken up among thinking and inquiring men, though not practical geologists, who have brought unprepossessed minds to the examination of the subject.

The advance of information on such points is forcibly illustrated in the deeply instructive narrative of Prof. F. W. Newman[1], who relates his surprise, at an early stage of his progress, on hearing Dr. Arnold declare the narrative of the Deluge to be mythical,

[1] Phases of Faith, p. 110, 1st ed.

and the Mosaic cosmogony to be of no real importance to the Christian faith. Indeed in the existing state of opinions, from the extensive consequences entailed, affecting the entire popular conception of the design and application of Scripture, the diffusion of such views must eventually create an epoch in theology hardly less marked than that of the Reformation.[1]

Cosmical view of comets.

The progress of cometary astronomy has been already noticed as destructive of the superstitious notions associated with those bodies in earlier times, and even down to a later period; but at the present day more important are the contemplations opened to us by the view of such vast aerial substances of a diffuse consistence, still retaining coherence and obeying the law of planetary motion, when even far beyond the utmost limits of our system, where, nevertheless, solar gravitation is thus proved to extend; many of them being also drawn into our system from incalculable depths of space: while, as to their vast numbers, (more than 200 having orbits calculated,) we may well agree with Kepler, that there are "as many in

[1] See "Christianity without Judaism."

the universe, as fishes in the sea." Such reflections cannot fail to exalt our conception of the enormous powers existing in nature, but in all their vastness still controlled by the supremacy of *law*, order, and mind.

Connection with nebular theory.

The study of these remarkable bodies is not unconnected with more theoretical views of cosmical arrangements. They have been regarded as the remaining representatives of the older nebulous state of things, which has passed away by the gradual condensation of matter originally in this form, into solid planets, from which these highly rarefied portions of the original mass have escaped. Yet these bodies, whose fittest terrestrial representation may be found in the assemblage of "gay motes which people the sunbeams," occupy vast spaces, the tails of some of them stretching over the whole extent of planetary distances: — again, we observe the zodiacal light-mass filling the entire area of the earth's orbit: — the singular system of nebulous planetary comets of short periods, of which five members with aphelion distances ranging only a little beyond the orbit of Jupiter, have now been verified; and whose *mean* distance so remarkably coincides with that of the *planetoids*; — of these latter probably vast numbers

exist; every successive application of higher telescopic power rendering more of them visible; though doubtless the mass are below all possible visibility: we have also those innumerable multitudes of meteoric bodies, which are so probably conceived to revolve in rings aggregated in more truly nebulous masses, and yet regular members of the cosmical group, occasionally attracted to the earth: — phenomena which all tend to carry our thoughts back to the period when the solid planets — the larger of them of so small density — may have been consolidated out of the nebulous mass into which the primitive heat had vaporised all cosmical matter, in which all kinds of thermal and electric agencies producing opposing motions would by consequence generate rotations; a state of heat of which our earth at least still exhibits the effects in its cooled crust and its internal fusion, at such depths as freely admit of its occasional manifestation at the surface.

Speculations founded on these principles are of course hypothetical; but guided by just analogies they tend to connect our view of the present with the past, and afford a uniting link between uranography and the past history of the earth disclosed by geology.

In the field of physical inquiry there still remain doubtless vast regions of discovery unexplored: the amount of what we know is trifling indeed compared with that of the unknown; but the inductive spirit assures us that it is only waiting to be made known, and that what appears now most obscure will assuredly some day be as clearly understood as what is now well-known, though once equally obscure: and farther, that there is no real *mystery* in nature, nothing which is in itself essentially incapable of being understood.

Completi of cosmic principle

But it is more especially that union and combination of different branches of science, when brought to bear upon each other, of which we have noticed some striking instances, besides the immense extension of modern discovery in so many newly opened channels, and the lofty generalisations to which it has led, which have been required in order to realise and to justify the elevated conceptions, — which the science of the present day presses upon us with rapidly accumulating force, — of the true and worthy idea of Cosmos, first fully and emphatically brought into the position it ought to occupy in general estimation by the great and masterly work of Humboldt.

Humbol Cosmos.

Natural history.

It would be almost superfluous to dwell on the vast modern enlargement given to the *natural-history sciences*, by the immense extension of research and exploration into the haunts of nature in all quarters of the globe,—a research which has been incessantly carried on with ever increasing results confirmatory of the most *recondite systems of order*, according to which the types of all organic life, whether vegetable or animal, are evolved in never ending variety and profusion: while with the aid of comparative physiology all those complicated relations of structure and function have been elucidated, which so conspicuously indicate the deeply-seated *analogies* which pervade all the arrangements of nature, and show the intimate relation of one portion to another in the most beautiful adjustment and harmonious adaptation, and thus unconsciously inspire those higher contemplations which the laboured processes of reasoning may fail to teach.

Physiology ng ystical.

The physiological sciences have been longer than others under the dominion of a narrow and mystical spirit, mainly dependent on the hypothesis of some peculiarly mysterious and supernatural principle as the source of vitality and of all animal functions.

Again, it has been in a kindred spirit that, even in the more advanced inquiries of modern times, the appeal has been made to final causes as the *primary* guiding *principle* in the investigation of organised structure, instead of regarding that idea as the *ulterior result* — a striking exemplification of the neglect of Bacon's caution that final causes were too often "wrongly placed" in science: made the beginning when they should be the end;—the seed when they should be the fruit. Undue predominance had been given to this view from the happy accident of its valuable application in the great discovery of Harvey. But here, as in other sciences, the same contest between the mystical and the positive principle was long carried on. Even the brilliant discoveries of the school of Cuvier were much mixed up with the indications of this narrower view; and those who looked only to more limited conclusions could not see the higher bearing of the struggle between the older school of teleology and the advocates of the newer and more transcendental doctrine of "unity of composition" laid down as the true basis of philosophical method in these sciences by Geoffroy St. Hilaire and his disciples, which the fuller exten-

Final causes.

Unity of composition.

sion of the inductive logic must entirely sanction, and every successive generalisation must tend to confirm.

Theory of life.

The nature of the vital principle is of all subjects of this kind, perhaps, the least as yet understood, and therefore has been the most involved in mysticism. We may, nevertheless, feel assured that it will one day be completely reduced to some mode of physical action in accordance with fixed laws, even if the explanation should be found to include some physical or chemical agent not yet recognised. Following in the steps of those processes of investigation by which the circulation of the blood, the system of respiration, and other portions of the animal economy now best understood, have been made known, every fresh research and discovery in physiology clears up, and traces the connection of some series of vital functions to the like exquisitely adjusted combination of *physical* action. Chemistry, on the one hand, succeeds in effecting continually closer approximation to the *synthesis*, as it has done so extensively to the *analysis* of organic structures. And it is thus indisputably the converging point of these varied researches, ulti-

mately, however remotely, to establish a physical theory of the vital principle.[1]

If beyond physical principles we entertain other ideas of a different kind bearing on the mental constitution of man, these clearly require a distinct, yet still inductive, examination; and still further, any higher moral or religious considerations bearing on the subject can only be conceptions of a totally different order independent of all scientific deductions, superadded by the creation of faith.

Life in Geological epoch.

And the same assurance applying to existing life must also be equally extended (on the same principle) to the past, and to all those marvellous changes in species which geological epochs disclose to us, and which, occurring as part of a regular series, and giving rise to equally regular results connected on every side with other events going on by natural

[1] As a specimen of the prejudice still existing on this subject, I extract the following notice of a physiological communication made to the British Association, from its Report (1857):— "Prof. Alison's "views were chiefly directed to oppose the modern tendency of "medical investigation, which he regarded as likely to degrade the "science to that of a subordinate department of chemistry on the one "hand, and of mechanical science on the other, omitting the one "consideration of that indispensable though less intelligible class of "phenomena which are known to be vital.—P. 109.

causes, must themselves be equally referred to natural causes. The case of palæontological speculation is but an exemplification of what must be the course of progress in all parts of physical inquiry—all alike conducive to the final establishment of the universality and eternity of law and order, continuity and intelligence; while the question of the first origination of all things is one which science is necessarily, and must ever be, incompetent to disclose, or even to conceive.[1]

Unphilosophical spirit of discussion.

The question as to the origin of new species in past epochs ought to be one simply of rational philosophical conjecture as to the most probable mode in which, conformably to natural analogies, it might be imagined to have taken place. Yet, instead of a calm discussion of this kind, which is all that could be attainable, the subject has been the mere battle-

[1] While on this subject I cannot omit to take this occasion of recording a protest against the now prevalent but barbarous use of the term "Biology." *Bios* never means "life" in the sense of "vitality:" it means the "life" of a man as progressing in *time*— his birth, actions, and death. Plato has "*βίος ζωῆς*," the lifetime of life. (Epinom. 982) Unfortunately the term "Zoology," which would be the proper one for this branch of science has been already appropriated to what ought to have been called "Zoography:" but there is still "Zoonomy," the science of the *laws* of life, open to adoption, and at any rate much better than "*biology*;" which, if it mean anything, would be a *theory* of the facts of *biography*.

field between extreme visionary fancies on the one side and obstinate prejudice and bigotry on the other. Instead of the real discussion of comparative probability in supposing the production of new forms either out of inorganic matter *directly*, or by modification of existing organised types *indirectly*,—the ideas started seem to have referred to the metaphysical paradox of origination of existence out of nothing; or the like ideal speculations, which were, yet more unreasonably, mixed up with the cause of revealed religion. Origin of species.

Such was the spirit in which several speculative theories broached on this subject were met. The original hypothesis of Lamarck, and the more recent philosophical romance of the "Vestiges of Creation," were alike accepted or encountered in the same totally unphilosophical manner. Even men of science have not discriminated between what are professedly hypothetical, yet legitimate, *conjectures*[1], and what are real scientific *conclusions*, and have ob-

[1] Thus a parallel case in the plurality of worlds is well described by "Huyghens, as one — "ubi verisimilia invenisse laus summa est, et "indagatio ipsa rerum, tum maximarum, tum occultissimarum habet "oblectationem. Sed verisimilium multi sunt gradus, alii aliis veritati "propiores, in quo diligenter æstimando præcipuus judicii usus ver-"titur." — C. Hugenii *Cosmotheoros*, p. 10, 1698.

jected to the one as if proposed in the other character; while theological animosity has been excited in equal absence of a power of distinction between the proper field of scientific speculation, and that of religious faith.

The same narrow temper was equally displayed when certain experimentalists had alleged, even if erroneously, the actual development of organic life by physical means, and when, instead of fair criticism and repetition of trials, their experiments were denounced as impious, ridicule substituted for inquiry, and anathemas for refutation.

Spirit of mysticism.

In general, we may observe, that confusion of ideas and *mysticism* in speculation, when displayed in *science*, evince the intensity in which they must influence the whole tenor of the thoughts. Such notions must be deeply seated indeed to affect reasoning on subjects from which they might seem most alien, and which are so eminently calculated in their own nature to demand and to encourage clearer and more rational views. When then this tendency is evinced even in science, it is not wonderful that it should exist in a tenfold degree in subjects of a more obscure nature, and thus more congenial

to its influence. Mysticism in science is the unfailing index to superstition in theology; as, on the other hand, the rejection of the one is a considerable step towards an emancipation from the other.

That in ignorant ages such appearances as those of comets, or even brilliant meteors, should inspire terror, is not surprising. But the mere fact of the configuration of the planets we might suppose would hardly attract notice. Yet, from the importance assigned to these conjunctions by astrology, they have kept some hold on public apprehension. It is on record that, in 1682, a remarkable conjunction of Jupiter and Saturn produced an extraordinary alarm in Scotland.[1] Astrology, &c.

There are still to be found serious believers in stellar influence; but under a different *form* it is only the same astrological *spirit* which survives in some who attach a religious importance to a conjunction of several of the planets together, which Laplace calculates took place B.C. 4004, the date assigned by the Hebrew chronology to the creation; between which and a planetary conjunction, it is impossible

[1] R. Chambers, "Domestic Annals of Scotland," vol. ii. 456, 1858.

to see any rational connection; but even in a biblical point of view, the Septuagint translation, made from older versions now lost, places the date much earlier, and thus would subvert the horoscope.

Mesmerism, &c.

In those subjects which lie, as it were, on the frontiers of positive science, and are at present necessarily matters of mere speculative conjecture, though there may be little tending to advance real inductive truth, yet in the discussion of them we may often find much that is instructive in regard to the mode and character of the reasoning commonly applied to such investigation. Of this class are the whole range of questions so much agitated in our days, respecting what are termed mesmerism, electro-biology, and other allied forms of influences on the human organisation, as yet little understood, or even properly inquired into, which yet ought, from their nature, to be fair and proper subjects for that strict inductive examination which they have hardly ever received. They have, on the contrary, been almost universally abandoned to the most utterly unscientific modes of treatment; and, instead of calm criticism, have been made subjects of childish and superstitious credulity or sense-

less controversy, as if questions of faith instead of facts.

In phrenology we have another instance in which violent partisanship, on either side, has divested of its true philosophic character what ought to be simply a branch of inductive inquiry. Calmly viewed, it exhibits only a set of the most unexpected relations, at first collected and examined in the most purely empirical manner, in complete absence of any theory; out of which, by slow degrees, a system has been elicited, of which it can only be said, that at present it exhibits just that sort of rough, general coherency which, in spite of numberless objections in detail, gives an assurance of something too deeply seated in truth to be put down as mere random coincidence or fanciful delusion. Phrenology.

By theological polemics, of course, the opprobrium of materialism and necessitarianism has been liberally heaped on the disciples of Gall and Spurzheim, with the same regard to fairness, and even competent knowledge of their system, as is usual in similar cases.

The question of materialism has been much agitated in connection with physiology, and has been too often taken up even by some eminent physiologists, Materialism.

in a spirit far removed from that of philosophic freedom.

Thus Cuvier eagerly pressed arguments against materialism in the spirit of alarm, probably not perceiving the utter harmlessness of the doctrine, supposing it could be established. Nor is the reasoning which he adduces less remarkable for its irrelevancy to the real point at issue. "Materialism," he contends, "is a very hazardous assertion, *because* we "have, after all, no real proof of the existence of "matter." And in this reasoning he has found many followers and admirers. But it is apt to be overlooked that our proofs of the existence both of matter and of mind stand upon exactly the same level, and really turn upon the definition of "existence;" while the question whether intellectual phenomena can be ascribed to any modification of matter acting, or acted upon, under particular conditions, is totally independent of any speculations as to the mode in which we conceive the existence of matter.

Modern Pantheism.

Among the varied and heterogeneous forms which the spirit of mysticism assumes, none, perhaps, has been more imposing, as seeming to connect itself with philosophical views, than Pantheism. The

opinions of Spinoza were, at least in part, probably derived from speculations of a far higher antiquity, which influenced not only the Greek philosophy (as before remarked) but the more ambitious and transcendental systems of the orientals. Thus, in modern times, there has been a strong leaning to such ideas on the part of men whose profound classical learning, and knowledge of the ancient philosophies was uncorrected by imbibing the more *positive* ideas and *defining* tendencies of modern physics[1]: and even those who, on religious grounds, have strenuously rejected Pantheism, have yet been disposed to concede the high philosophical and transcendental character of a speculation so essentially visionary and full of moral contradictions.

But to return to the domains of real science,—to breathe the free air of philosophical truth,—we advance to a great modern epoch.

Amid the grand scientific advances of our own times, no man has done more to give an entire new form to electro-chemical philosophy, by his splendid discoveries, or to crown abstract principles with invalu- Sir H. Davy.

[1] See Sewell's "Horæ Platonicæ," p. 312.

His physical discoveries.

able practical inventions, than Sir Humphry Davy. Without dwelling on the vast range of new views opened by the decomposition of potash, and the various applications of galvanism, which prepared the way for the more extended discoveries of Faraday, it would be difficult to cite an instance of wider intellectual grasp than that by which he united under a single generalisation such apparently remote facts as that red-hot iron becomes dark by contact with cold bodies, and that flame surrounded by wire gauze is safe in an atmosphere of explosive gas.

His general abilities.

When we examine the records of his life and correspondence, and his various productions on subjects distinct from his own science, we cannot but acknowledge and admire his varied and high powers of eloquent discussion, his vivid imagination, and animated expression of feeling. And though his geology was of the catastrophic school, his metaphysics of a vague kind, and his political economy such as would now be rejected, yet these were the common opinions of his earlier days.

His theological views.

On higher subjects, if we take as the fundamental exponent of his views the avowal that his entire belief in a Deity was founded on an instinctive in-

ternal feeling [1], not farther to be analysed, this might perhaps be supposed to dispense with all philosophical reasoning or speculations on the subject; and we need think little of an insinuation of Pantheism made by one of his biographers [2], or of an early poem entitled "Spinozism," the tenour of which is wholly opposed to its title, and which contains merely devout reflections on the works of creation.

His grand argument was that the unerring innate instinct of animals is nothing else than the immediate influence of the Deity.[3] And it is on the analogy of this instinct extended to man that he professedly based all religious sentiment and belief in the Divine existence, as well as the idea of revelation from Him. But in pursuing this idea he puts forward some further speculations which perhaps some may consider as more open to question. Thus he observes:—

Revelation and miracles.

"What is the instinct of animals but an immediate "revelation? And they have more instinct in pro- "portion as they have less reason. In the infancy of

[1] Dr. Davy's "Life of Sir H. Davy," vol. ii. p. 89.
[2] Dr. Paris's "Life of Sir H. Davy," vol. i. p. 124.
[3] Dr. Davy's "Life of Sir H. Davy," vol. ii. p. 73.

"human society, man being a more perfect animal, "required more moral instinct or revelations to pre- "serve his social existence. Now even the rudest "people are accessible to the more civilised; and "special revelations are no longer necessary.

"It is quite certain that in these revelations no "new ideas were given, and no new impressions re- "ceived; even the supposed presence of Deity may "have been an imagination of a human form, and "the miracles delusions of the human mind, though "clearly disposed to those delusions by the existence "of the instinct; and this indeed is in accordance "with the Divine wisdom and power, as it is much "more easy for mind to produce an ideal conviction "of satisfied appetite than to create a new quantity "of matter, which must have been the case if the "few small loaves and fishes had been sufficient to "satisfy the multitude in the wilderness."[1]

Again: — "The flight of the quail and the migra- "tion of the landrail are, in fact, miraculous. . . . "The meteoric stones in our time are a miracle of "nature."

[1] Dr. Davy's "Life of Sir H. Davy," vol. ii. p. 75.

Yet he says in another place,—

"The occasional miracles and gleams of prophecy "seem intended to demonstrate Divine interference "or power."[1]

Without going into minute criticisms on these expressions we cannot fail to recognise in them the general result of the enlarged physical views of the philosopher, of a more comprehensive kind than were usually avowed at the time, though conceived in an entirely religious spirit.

From what we can collect in other respects, Sir Humphry Davy's view of Christianity would appear to have been rather of that cast which identifies it with assumed moral relations of man to his Creator and the aspirations of the soul to a reunion with Him based on metaphysical views of an immaterial principle, than on any precise interpretation of the New Testament.

In the general character of the expressions just quoted, we may recognise the commanding view of natural order which a just philosophy supports, while the difficulty felt in regard to alleged cases of

[1] Dr. Davy's "Life of Sir H. Davy," vol. ii. p. 79.

interruption in the chain of physical causation led to the idea of accounting for them by particular suppositions of a nature more open to question.

Rationalism.

The development of this idea in its more proper theological relations had commenced at an earlier period, but attained (as before remarked) its fullest growth (some may say its perversion) in the early part of the present century among a school of theologians in Germany, giving birth to the several speculations emphatically termed rationalism; more especially referring to the external historical view of the origin of Christianity and the attempt to obviate the *rejection* of the miracles by *explaining* them as real events due to natural causes, according to the ideas of the age described as supernatural, or misunderstood and exaggerated by traditional repetition.

These researches, commencing with the limited and partial comments of Semler in the last century, and terminating with the more complete theory of Paulus in the present, claimed a relation to the philosophy of the age; and the farther prosecution of the same primary object in our own day, has been carried out by an entire rejection of those theories, to found a totally different one on critical grounds, by

Strauss[1], and to introduce a peculiar view of the mythic nature of the entire New Testament narrative (and which together with the former theory will be the subject of separate examination in a future essay), which is here alluded to as professedly connected by Strauss with scientific views and philosophical advance. Strauss.

Thus, speaking of his own competency for the work he had undertaken, he lays claim to at least one qualification, — "a disposition and spirit emancipated "from certain religious and dogmatical prepossessions, "which happily the author has acquired by philoso- "phical studies;" while he justly applauds the philosophic spirit which pursues truth "with a scientific "indifference to results and consequences."[2]

Again, speaking of the general tendency in certain stages of civilisation, especially in ancient times, to mix up history with recitals of the marvellous, he adds, "There is no such thing as the purely histo- "rical sentiment, so long as men do not comprehend "the indissolubility of the chain of finite causes, and "the impossibility of miracles; a comprehension in

[1] Life of Jesus, preface to 1st ed. p. 8, French transl.

[2] Ibid. p. 10.

"which so many are wanting even at the present "day."[1]

Other instances of the same influences.

If such have been the results of the direct influence of philosophic studies in reference to this material subject, we may recognise their indirect reflection on a very differently constituted mind, exhibited in the declaration of one of the most distinguished ornaments of the English Church in our own times, the late excellent Archdeacon Hare;—attesting that such convictions may be perfectly compatible with the most sincere and devoted adherence to Christianity, when he emphatically puts the question, "whether in the pure ore of the Gospel, the "physically marvellous be not a separable alloy."[2]

The whole of this most important question will form the express subject of subsequent discussion. But we may here just observe that many, while they fully recognise the principle of this last remark, may equally feel the difficulty of any practical solution of the question in detail: a difficulty which the same author perhaps, in some measure, avows when he affirms it to be "the great *problem* of the age to

[1] Life of Jesus, i. p. 79, French transl.

[2] Life of Sterling, p. 63.

"reconcile faith with knowledge, philosophy with "religion." [1]

Nor can we omit to notice another declaration from a writer of a very different stamp, which, on quite an opposite side, practically acknowledges nearly the same thing: — Mr. Hugh Miller observes, "the battle of the evidences will have to be fought "on the field of physical science;" [2] in obvious apprehension for the issue, subversive as it must be of that Judaical theology which he adopted.

It may be added, that there appears at the present day, among various eminently religious parties (perhaps without much connection with physical views), a decided recession from the old *evidential* argument of miracles, to rest their cause on moral and internal grounds of conviction: and even to discuss the nature of miracles in a way which, we cannot but suspect, may evince some indirect reflection of the light of advancing philosophy.

Throughout the preceding sketch we have remarked the legitimate tendency of all true science towards a more definite and positive character; Positive philosophy.

[1] Life of Sterling, p. 121.

[2] Footprints, p. 121.

less mixed up with gratuitous theories, particularly with those resting on metaphysical grounds, and (more especially) less influenced by views of a higher kind, which, however important for their own exalted purposes, are misplaced in philosophy, and at once lose their proper character and influence and destroy that of science, when unwisely introduced into its discussions.

M. Comte's system.

The most recent and complete development of these principles and the systematic embodiment of them, carried out indeed into more precise details, and involving an elaborate exemplification of their application in what professes to be a complete scheme of human knowledge, constitutes the "Positive Philosophy" as expounded by M. Comte.

To the subject of this system it will be peculiarly necessary to devote a few remarks, as at once eminently characteristic of the science of the age and bearing pointedly on the object of the present essay.

Stages of advance.

M. Comte regards all science as capable of classification, according to the degree of perfection at which each branch has arrived in connection with certain conditions of the human mind and cultivation of the faculties employed in bringing it to per-

fection, a perfection which is attained only after a gradual process of improvement in the correct apprehension of first principles, and an emancipation from peculiar prepossessions which always at first impede its advance, and in this respect he considers that every science must necessarily pass through three distinct stages.

(1.) The "Theological" stage[1] is that in which the mind seeks "absolute cognitions" and views of the intimate nature of things, and represents all phenomena as produced by a direct arbitrary action of superior beings.

(2.) In the "Metaphysical" state this supernatural agency is replaced by scarcely less mysterious abstract principles, supposed inherent in matter, and an imagined real existence or operation by efficient causation, ascribed to what are purely intellectual abstractions.

(3.) In the "Positive" state, both of these former modes of conception are strictly banished from philosophy, and no ideas admitted but those which simply result from inductive generalisation.

[1] Philos. Positive, vol. i. p. 4, *et seq.*

In this state the mind renounces all idea of seeking absolute knowledge of the essence of things, and contents itself only with their invariable relations, and endeavours successively to reduce them to higher and fewer first principles.

In the extended scheme of the whole cycle of sciences which the author traces out in connection with this view, there seem, however, to be two grand omissions: —

Omissions in Comte's system.

M. Comte excludes from his scheme the wave-theory of light, because he regards it as involving the hypothesis of the real existence of an universally diffused ether, and thus being, as yet, in the "metaphysical" condition. But in point of fact, to whatever extent some philosophers may have speculated on the physical existence of such a medium, it is not true that it is essentially supposed in the undulatory theory of light. All that is asserted is *the existence of vibration* or alternating motion, as affording the means by which a vast range of the phenomena of light are reduced to mechanical explanation, and which is as strictly "positive" a principle as any which he admits.

Another more singular omission is that of geology from the list of "positive" sciences. This is

the more remarkable as few branches afford a more complete exemplification of the author's own principle, as indeed the remarks in a preceding part of this essay abundantly exemplify: — showing its purely theological origin; its progressive advance, though still enveloped in mystery; its present final emancipation from mysticism, and its reduction to purely natural causes and positive principles.

Bearing on theology.

The real bearing of the more positive form of modern science on the higher question of religious belief according to views developed in the foregoing remarks will be sufficiently evident. In this respect the author of the "positive philosophy" appears to have fallen into misconceptions which have seriously impaired the value of his otherwise profound and important remarks to a far greater degree than the defects already noticed. It will be necessary to offer a few illustrations in support of this remark.

The author instances especially the science of astronomy as that which has arrived at the most perfect condition and is now in the most purely "positive" state, being completely freed from all theological and metaphysical ideas, and thus affording the most prominent instance in support of his

assertion, that "all real science is in radical and "necessary opposition to all theology."[1]

Final causes.

Again he observes that no science has given "more terrible blows (than astronomy) to the doc- "trine of final causes—generally regarded by the "moderns as the indispensable basis of all religious "systems—though it is in reality only a *consequence* "from them." . . . "The single knowledge of the "motion of the earth ought to destroy the first "foundation of this doctrine—the idea of the uni- "verse subordinated to the earth, and by consequence "to man."[2]

In these expressions we may trace simply a confusion of thought between an *opposition* of science to theology and an *independence* of it. Science necessarily and correctly rejects all appeal to theology as its *basis*, or as *influencing* its *conclusions:* but it does not follow that those conclusions are therefore *opposed* to theology.

That "final causes," in the narrow sense in which alone the author regards them, are really a *consequence* from theological views, not the *basis* of

[1] Philos. Positive, vol. ii. p. 36. [2] Ibid. p. 37.

them, is perfectly just and true; but it does not follow that astronomy, or any other science, *disparages* or *nullifies* them; and it is only in a very false sense that they have been or can be associated with the subordination of the universe to the earth and to man;—a point eminently necessary to be dwelt upon, as striking at the root of many speculations indulged in even at the present day, which violate and vitiate all true principles of philosophy for the sake of supporting a narrow and superstitious religious doctrine.

Another of his arguments is, that the elements of the solar system are not in fact "ordered in the "most advantageous manner, and science easily per- "mits us to conceive a better arrangement."[1] But were this true, it offers not the smallest disparagement to the grand inference of *mind* from the *actual order* of the universe.

Again, he observes: "By the development of the "true mechanism of the heavens, since the time of "Newton, all theological philosophy, even the most "perfect, has been totally deprived of its principal

[1] Philos. Positive, vol. ii. p. 37.

"intellectual office,—the most regular order being "thenceforth conceived as necessarily established and "maintained in our world, and even throughout the "entire universe, by the simple mutual constitution "of its different parts."[1] If this remark (as may be presumed) simply means that the office of reason and philosophy in respect to theology was in past times mistaken, it is perfectly just. Reason and science give the evidences of reason in nature, evinced by those universal laws; but with theological doctrines they have no concern.

Again, speaking of the stability of the system, he says: "This grand notion, presented under "a suitable aspect, may without doubt easily be "made the basis of a series of eloquent declama- "tions having an imposing appearance of solidity. "And nevertheless a constitution equally essential "to the continued existence of animal species is a "simple necessary consequence, according to the "mechanical laws of the world, of certain con- "ditions characterising our solar system."[2]

The eloquent declamations alluded to are doubtless often vitiated by the fallacious reasoning they

[1] Philos. Positive, vol. ii. p. 37. [2] Ibid. p 38.

involve. But the simple fact that this security and conservation of the system is the direct result of mechanical laws, is itself the proof of the unity of principle, the exponent of recondite adjustment, pervading the mechanism of the planetary world.

Positive principle not in opposition to theology

Thus the material defect of M. Comte's view, and that which has justly exposed it to the most serious objection, is, that he does not merely place *theology apart from science*, but rejects and disowns theology altogether. Now, with the strictest acknowledgment of the positive principle in *philosophy*, it does not at all follow that other orders of conceptions do not exist *beyond the region of science*, beyond the analysis and deductions of reason, or the dominion of the positive system,—in fact, such are the whole range of moral and æsthetic sentiments,—all matters of taste, of feeling, and of imagination;—and such must be all those higher ideas of spiritual and invisible things which are the proper objects, not of knowledge, but of faith, and which, from their nature, can never enter into the range of philosophical investigation, and can consequently be in no hostility to the strictest positivism in *science*.

This defect is sufficiently glaring; but it becomes immensely more so when we proceed to the more constructive part of M. Comte's system. The broad fundamental principle of positivism in *philosophy* appears to be no more than the just and legitimate development of the true inductive idea analysed rigidly up to its first principle, and excellent when applied within the proper province of science to the various branches of real physical inquiry.

Just in physics,

but misapplied in morals.

But just as M. Comte's system thus far is in principle (with the exceptions before noticed), his method lamentably fails when applied to the more mixed subjects which include any reference to human nature, its relations and affections, moral and social; more especially to subjects involving æsthetic considerations, and, above all, those appealing to any higher contemplations. It is in this point of view that the more applied parts of the system display a strange inconsistency with all legitimate and enlarged philosophy, and have no real connection with the physical portions of his own speculations.

His views here exhibit a contraction of ideas, and a degradation of science, in miserable retrogradation towards the old notion of making our subordinate

little planet the virtual centre of the universe, and the grovelling utilitarianism which ignores all higher inquiries as useless, in a strain worthy of the narrowest bigotry of the dark ages.

Religion of positivism.

From this he proceeds to what, by a strange misnomer, he terms the "Religion of Positivism," when he had before announced his very principle as essentially at variance with all religion. This, however, is a religion without a God! whose object is limited to the narrowest positive development of human nature; yet exhibiting a tissue of impracticable chimæras befitting the wildest fanaticism; a "worship of humanity," with an organised intellectual hierarchy, a calendar of "positive" festivals and social sacraments, which is destined to supplant all the old creeds—now tottering to their fall—and to regenerate the world![1]

The fundamental delusion or deception is to call such a system *religion*. Men cannot worship facts, or bow down to demonstrations. All *religion*, as such, ever has been and must be a thing entirely

[1] See the "Catechism of Positive Religion," by A. Comte: translated by R. Congreve, London, 1858.

sui generis, and implies mystery and faith, however rightly allied to knowledge, and susceptible of a variety of external forms, according to the diversity of human character and the stages of human enlightenment.

Recent progress of natural theology.

The contempt with which M. Comte affects to treat the great argument of natural theology has manifestly arisen from the pitifully contracted point of view in which alone he had ever been led to contemplate it, and in which, it must be confessed, its advocates have been too much given to exhibit it.

Kant.

The most enlarged view of the entire subject was that so elaborately unfolded by Kant[1]; who, while he critically analysed and exposed the defective pretensions of the transcendental metaphysical reasoning of a former age, dwelt emphatically on the true conception of the external physical evidence, based on the essential distinction between the strict conclusions of science and those higher forms of contemplation to which the moral and religious sense of mankind in all ages inclines them, and which

[1] See "Oxford Essays," 1857, Essay V.; and Cousin's "Lectures on Kant."

constitute the real source of all practical views of the subject.

English writers.

Among our own writers the discussion has certainly assumed an aspect of higher and more scientific pretension in recent times. Some have professed to improve upon Paley, in following up a more strictly analytic and *à posteriori* form of the argument; but their expositions, luminous and forcible as they may be, still usually appeal more to foregone conclusions than to philosophical conceptions.

In the numerous recent works on this subject which have attained popularity, we cannot but observe that facts and instances, examples and inferences in detail, have indeed been produced in rich and increasing profusion, as the stores of scientific knowledge of nature, have been continually augmented by ever expanding research. Yet comparatively little advance has been made in the higher analysis of those conventional modes of argument, to whose stereotyped forms most writers on the subject seem to consider themselves pledged to adhere.

The illustrations of Lord Brougham, the criticisms of Bishop Turton, and the stores of erudition and science poured forth by the writers for the

Bridgewater and Burnett prizes, though they have abundantly illustrated and powerfully enforced the accepted convictions of universal and natural feeling, have, upon the whole, effected little in the higher philosophy of physico-theism, the *logic* of which is in fact the only point in dispute. Amid these illustrations, however (to take one instance), we cannot but notice the favourite tendency with many of these writers to dwell on the effects of a resisting medium, or the motions of the solar system, as ultimately destructive to the earth and planets, by absorbing them all in the sun. But supposing this granted, it is difficult to see in what way it would conduce to the evidence of the Divine perfections.

Among the treatises just alluded to, doubtless that of Dr. Whewell [1] stands prominently higher, both in its general scientific tone, and more especially in vindicating for the principle of the reduction of *facts* under *laws*, the high position it ought to occupy in the general argument. The same may be said with respect to the preeminence of the idea of *order in nature*, as asserted in the work of Dr. Tulloch.[2]

[1] Bridgewater Treatise, 1833.

[2] Second Burnett Prize, "Theism," &c. 1854.

But for a more truly philosophical survey of the higher principles of reasoning on these points we must refer to the writings of Œrsted, who, already highly distinguished in science, — by a single discovery (1820), effected after profound theoretical reflection, yet with truly surprising practical simplicity, — at once created a new science, conferred on mankind a new art, a new sense and means of communication between the remotest nations, — and who has also at the close of his life, in a valuable work[1], bequeathed to the world his application of the conclusions of science, to the support of physico-theology, — a work to which such ample reference has been made in former essays as to render any more particular mention of it in this place needless, but which (with immaterial exceptions), in almost every point, sanctions and corroborates the views advanced in those essays. Œrsted.

To render a survey of the recent progress of science in any degree complete, we must advert, however briefly, to that widely extended field of investigation now opened to our contemplation (mainly originat- Correlation of forces.

[1] The Soul in Nature, &c.; translation, London, 1852. See "Unity of Worlds," Essay I.

ing out of the discoveries of Œrsted) in the grand and comprehensive theories of the correlation of physical forces, elucidated by Grove, and extended as they have been by the transcendental investigations of Joule, Rankine, and W. Thomson, to universal principles of the equivalence of dynamic action, under whatever variety of form or physical agency the same primary and unalterable amount of mechanical energy may be disguised. Speculations which, besides their high theoretical and scientific value, seem to bear with a peculiarly direct significance on the profound principles of universal order and unity of system in nature which our present argument contemplates.

Effects of scientific institutions.

In all these branches of discovery, and the effects achieved by individual energy, we cannot overlook the immense aid to all scientific labour, which, especially in later times, has been obtained from the *association* and union of such energies, thus giving them increased power and systematic direction in the institution of public scientific bodies, academies, and societies.

In the middle ages, amid surrounding barbarism and ignorance, the foundation of universities was a step of immense importance; and to those noble

institutions has been due no small share of the cultivation by which after ages have so largely profited. But in all institutions there may usefully exist a distinction of functions. Some are for creating knowledge; some for accumulating, systematising, and teaching; some for diffusing and familiarising; some for applying and practically making use of it.

Inductive laws of the moral world.

Among the results of the progress and extension of physical inquiry, few perhaps are likely to be of greater and more salutary importance than the application of inductive investigation to that vast range of subjects not absolutely coming under the designation of physical science, at least not as yet reduced to physical causes, which refer to the condition of society, the state of public health, the value of human life, the tendencies of human conduct, of social institutions, and the like points of inquiry, to all which the principle of inductive generalisation is now being applied; and however vast the field, yet the prosecution of such a research, in proportion as it acquires more precise development and demonstration, it may be fairly expected, will ultimately tend to establish the order of the moral world on a basis as fixed and universal as that of the physical.

In several departments of inquiry, such laws are now being gradually traced and established, by which we find human actions and human affairs generally are regulated, *upon an average*, to a degree of certainty and exactness which seems marvellous when compared with their seeming capriciousness in individual cases, and which we can hardly doubt is closely connected with some recondite laws of a physical kind, though their relation is as yet little understood, or even conjectured.[1] We must, of course, allow for a considerable amount of fluctuation in particular cases, if we are to admit the operation of the free moral volition of individuals. But it is precisely from the conflicting and antagonistic action of such a multitude of opposing and

[1] For some excellent remarks on the nature and importance of this rising branch of inquiry, the reader is referred to the admirable address of Lord Stanley, M.P., on opening the Statistical Section of the British Association, 1856. See Report, Sectional Proceedings, p. 122. It can hardly be necessary to add that the whole subject has received by far the most complete elucidation yet given in the masterly work of Mr. H. T. Buckle, "The History of Civilisation in England," vol. i., Introduction, 1857; the argument of which essentially involves the principle and application of this deduction of the invariable causes affecting human conduct and progress and the condition of society and of nations, based on accurate statistical data, and tending to philosophical generalisation of the highest interest.

independent varieties of individual will and action that the ultimate balance and uniform mean results are obtained and preserved.

Supported by high authorities

Founded on the universal recognition of *laws*, long ago hinted at by Bishop Butler, even in events where they least appear, this branch of inquiry may be said to have been almost created as a science within our own times.[1]

In a higher point of view, it has also been recognised and advocated, with his accustomed ability and force, by Professor Sedgwick, who observes: — "We are justified in saying that, in the moral as "well as the physical world, God seems to govern "by general laws. . . . . I am not now contending "for the doctrine of moral necessity; but I do affirm "that the moral government of God is by general "laws, and that it is our bounden duty to study "those laws, and, as far as we can, to turn them to "account.[2]

Mr. Combe's views.

Another eminent writer, the late Mr. Combe, has evinced not less zeal and ability in advocating the same cause, even to a more detailed practical extent.

[1] See above, p. 134.

[2] Studies of Cambridge, 5th ed.

He has enlarged on the great principle of acknowledging law and order in the course of all events [1], in contradistinction to continual interposition, and has earnestly contended that the people should be everywhere instructed to recognise "the sacredness of nature," [2] and that it should be made an essential point in education to interpret the natural arrangement and order of the world as the true manifestation of its providential government — an object which as yet has been too much neglected and undervalued.[3]

Of these arrangements, he points out that man himself constitutes an important integrant part; and

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[1] Relation of Religion and Science, 4th ed. 1857, p. 11.

[2] Ib. p. 159.

[3] "In religious teaching," Mr. Combe observes, "the grand principles represented are all supernatural, and the revelations of the "Divine will in nature, as a basis of morals and religion, are excluded "from schools, colleges, churches, and social consideration. . . . . "The Divine laws of religion, morality, and practical conduct revealed "in nature, are nearly banished from the pulpit, and few attempts "made to harmonise them with Christianity." (Ib. p. 220.)

In these complaints, there is, in general, too much truth. Yet we have witnessed some brilliant exceptions, as in the Sermons of the Rev. Charles Kingsley, especially those on Pestilence, as well as a recent discourse of Dr. Lee, published by Royal command, entitled "What Christianity teaches respecting the Body," 1857.

that his influence, as affecting the course of events and the actions of his fellow-creatures, is mainly due to superiority of intellect in some individuals over the rest; and this is traceable (according to the author's views) to the conformation of its physical organ, the *brain*, "which," he observes, "is the in-"strument through which God conducts the moral "government of the world."[1]

Bearing on religion.

Nevertheless, as might be expected, the progress of this branch of inquiry has been viewed with suspicion, and has excited hostility from its real or supposed bearing on religion. As, in former ages, comets and eclipses were viewed as supernatural prodigies, and the appearances of the heavens as portending or influencing human affairs, so that to question this belief was held equivalent to atheism, in like manner, down to a much later period, in the same spirit, have storms, inundations, pestilences, droughts, and famines been believed to be similar direct interpositions; and as these have been, by degrees, reduced to natural laws, the charge of impiety has been raised, just as it was in the former

[1] Relation of Religion and Science, p. 118.

case. And thus, when the results of human actions and moral agency, on the wide scale, are beginning to be found traceable to some determinate laws, it is not surprising that the accusation of an irreligious and immoral tendency in such inquiries is set up, and the array of facts and figures denounced as an impious denial of Providence, instead of being, as it is, the very proof of it, from the indication it so extensively affords of the profoundly adjusted order with which the Divine moral and social government of the world is carried on.

Archæology and Ethnology.

If, to remarks of this kind, we add those of a kindred description relative to the history and origin of nations, races, languages, of arts and civilisation, so widely cultivated of late, derived from the same purely inductive kind of inquiry, unfettered by traditional prejudices, or a reference to objects or associations alien from those of pure science, — however excellent in themselves, — we shall acknowledge, in the results and in the spirit of inquiry generated by the pursuits of archæology, social history, philology, and ethnology, some of the grandest advances in the influence of philosophical views and the emancipation of thinking minds from long inherited errors

and confined notions,—too often incongruously mixed up with religious belief, but by the rejection of which that belief cannot fail to be purified and strengthened.

Origin of mankind.

As ethnological researches have advanced, those who have most extensively cultivated them have been more and more impressed with the belief in the high antiquity of man; and we cannot here omit, as the most remarkable recent instance of this kind of archæological research, the important investigation of Mr. Horner[1], by borings through the sedimentary deposits of the Nile, in which, at a depth corresponding (on the average rate of deposition) to a period of 13,000 years ago, were found fragments of *pottery*, proving the existence of man comparatively civilised. Others have speculated on the probability of distinct original species[2] of the human

[1] See Proceedings of Royal Society, No. 29, p. 128.

[2] On this point, the following remark is eminently deserving of consideration: — "Isolated traditions, met with in many different places "on the earth's surface, ... derive the whole human race from a "single human pair. The wide diffusion of this belief has sometimes "led to its being assumed as a primitive recollection among mankind. "But this very circumstance rather informs us that nothing traditional "and nothing historical lies at the root of the persuasion, but merely "the similarity of the human faculty of conception, which leads to the

race; some of which, at remote periods, many conceive to have been of a type lower in the scale, and perhaps forming a connecting link with the inferior animals.

But whatever may be thought of these speculations abstractedly, when we hear them denounced by some parties as immensely dangerous, we have only to reflect how utterly unconnected any such *physical* points must be with the doctrines of Christianity, so peculiarly directed to the *spiritual* condition of man, and the things of another world.

"same explanation of the same phenomenon. Many similar myths "have very certainly arisen, without historical connection, out of the "similarity of man's poetical and speculative constitution."—W. Humboldt, "On the Diversity of Languages and Nations, &c.:" quoted by A. Humboldt, Cosmos, p. 387, 1st translation, 1845.

CONCLUSION.

IN thus, however briefly and imperfectly, tracing the main features which have marked the progress of physical knowledge during a succession of ages up to our own times, it cannot fail to have been remarked, that, if we look to what must confessedly be regarded as the highest and most valuable result of such advance, we find it evinced, not so much in the mere discovery of particular truths, however important, as in its more indirect effects on the general tone of mind and habits of thought, and in those more enlarged and enlightened views which the freedom of inductive generalisation, combined with the caution of inductive precision, tends to produce, to foster, and to extend.

General influence of the inductive spirit.

The most marked feature of what we may call the *moral* influence of *physical* advance is, perhaps, the confidence of the human mind in its own resources; subject only to the condition that those energies are

Progress from conformity to nature.

always employed and applied in subordination to the great principles and analogies of nature, and based on the ever-increasing conviction of the universality and immutability of natural order.

Commensurate with the conformity and subjection of all human reasoning and human skill to these great principles, must be its increasing power and its progressive triumphs in the special applications of science as such; and equally so will be the advance towards those more elevated views and sublime contemplations, which are more worthily followed out precisely as they are in closer conformity to the same great natural analogies.

Of the slow progress made in this respect, in the earlier stages even of the modern philosophy, we have seen remarkable evidence, both in the *general* tone of speculation in those times, contrasted with that displayed by a few bolder spirits; and even in the inequality of some great minds with themselves — elevated as they were on some subjects, yet evincing on others an entire subjugation to received prepossessions. Yet, if the spirit of the inductive school boast above everything a freedom from the dictation even of learned *authority*, it ought, in a

Emancipation from prejudice.

pre-eminent degree, to exempt its followers from paying homage to vulgar prejudice and illiterate bigotry.

Higher generalisation.

Some even of the most exact discoverers in nature have not afforded the best examples of the influence of that higher philosophy, to which their invaluable physical advances were the essential preliminaries and substantial basis. But those who have taken more comprehensive views, in conformity to real inductive principles and natural analogies, and have thus emancipated themselves from time-sanctioned errors, will be recognised in their claim to the title of philosophic instructors of human intellect, and lights of human belief; especially in reference to those higher contemplations to which positive science may point, but cannot conduct us.

We have before adverted to the indirect and remote influence of science on the opinions and ideas of the age. This is a point the importance of which was long ago recognised by Bishop Berkeley, who remarks[1]: — "Prevailing studies are of no "small consequence to a state, the religion, man-

[1] Siris, p. 158, § 331.

" ners, and civil government of a country ever tak-
" ing some bias from its philosophy, which affects
" not only the minds of its professors and students,
" but also the opinions of all the better sort, and the
" practice of the whole people, remotely and conse-
" quentially indeed, though not inconsiderably."

Modern scepticism from moral and metaphysical sources.

We can form some idea of the actual state of religious belief among the educated and cultivated classes at any period from the published opinions and tone of the literature of that period, though it may be by no means easy, or even possible, to trace exactly how far that state of opinion may be directly connected with the progress of science or the pursuits of philosophy. Yet so far as we can reasonably speculate on such a point, it can hardly be doubted that, at the present moment, though there exists among us a very considerable amount of scepticism, and even positive and avowed disbelief in Christianity as a Divine revelation, or in its peculiar doctrines in detail, that disbelief may be in all cases traced up to the influence, *not* of physical, but of *metaphysical* and *moral* speculation.

And if we venture to look at all to individual examples, it may be confidently affirmed that scarcely

one single instance, among ourselves at the present day, can be adduced of a *physical* philosopher who has published or avowed opinions hostile to the Christian doctrines, while several have written in defence and support of them. If such men feel the necessity for enlarged views of universal order, and discard the idea of *physical* interruptions, this has in no instance led to any rejection of the moral and spiritual teaching of the Gospel. Among the great mass of those devoted to mathematical, astronomical and experimental research, to chemical, physiological, and geological studies, we might, perhaps, rather say, there exists an indisposition to enter at all on inquiries or speculations connected with higher topics; yet this is invariably coupled with the expression and the feeling of deep respect for subjects which they may think it beside their province to discuss.

Intellectu and moral influence physical improvement.

There is a species of influence over the progress of mind and civilisation, consequent on the extension of scientific discovery, too manifest to require comment, which yet ought not to be omitted in the enumeration of such influences — the vast impulse

and extension given to *intellectual* advance by means of *physical* improvement and inventions in the arts of life. It may seem trite and obvious, but it is not less material, to record among the means of enlightenment, even on the most sublime topics, such now familiar instruments and aids as the printing-press, the steam power, the electric telegraph, the methods of mitigating suffering and prolonging life, and the annihilation of time and distance. The *improvers* of the conditions of existence, the *diffusers* and *perpetuators* of knowledge, must ever rank with the *creators* of the knowledge and enlightenment so applied and extended.

The contemplation of such marvellous indications of the power of mind over matter, cannot but raise salutary reflections on the higher nature and affinities of mind; and the community of thought, thus extended between different regions and races, cannot but result in inducing greater liberality of sentiment. The empire of intellect is seen to have its proper limits in the world of matter; while the separate dominion of faith is supported in a region beyond the discussions of reason; and which ought, therefore, to be sanctified by peace and charity.

In its higher relations, the advance of the inductive philosophical spirit at once assures the grand evidence of universal intelligence, and tends to dispel all superstitious fancies by which the truth is obscured and degraded; while again it precisely points out the limit necessarily imposed on all philosophical inferences as to religious doctrine, and demands the surrender of all such sublime conceptions to the more fitting and paramount jurisdiction of faith.

Where philosophy ends faith begins.

Thus, advancing philosophy unhesitatingly disowns contradiction to physical truth in matters properly amenable to science, however they may have been associated with religious belief; but, beyond the province of scientific knowledge, reason acknowledges a blank and a void, which can only be filled up by conceptions of a totally different order, originating from higher sources, in no way opposed to reason, as they present no ideas cognisable by it, but solely objects of spiritual apprehension, derived from Divine revelation.

NOTE.

RECENT BIBLE-PHILOSOPHY.

1. After the repeated references already made to the subject of that radical misconception at once of science and of theology, which leads to the idea of connecting the language of the Bible with the discoveries of science, or to the attempt to reconcile them when they are in contradiction, it might seem superfluous to add any remarks on the subject.

But there are incessantly appearing speculations of this kind, the productions of a class of minds incapable of philosophical reasoning, yet ever discussing scientific subjects; on whom the force of repeated refutation is lost, and who are continually coming forward with revivals of thrice-rejected and exploded fallacies, — some of which thus nevertheless demand a brief notice.

2. After the examination into which I have entered, of the whole argument of Mr. H. Miller's works, both in a former[1] and in the last instance[2], I can only add an expression of surprise that so leading and liberal a journal as the "Edinburgh Review" should have so far lost sight of all sound philosophy, and shown itself so far behind the advance of enlightenment, as to introduce, in

[1] Unity of Worlds, Essay III. § 3.

[2] Christianity without Judaism, Appendix No. xviii.

a recent article[1] on the works of the author just named, a new attempt to revive the credit of Bible-Geology. The whole argument proceeds on the *assumption*, — as if uncontroverted, — of the authority of the Judaical Scriptures in the matter. It is nevertheless carried on with a prudent ambiguity of expression, in which the writer avoids committing himself on philosophical points; while at length he is constrained to reduce the whole alleged accordance of Scripture with geology to the mere general resemblance of the two in the assertion of a *progression* in the introduction of the forms of organic life: an assertion which, it is well known, is nevertheless denied by some geologists altogether; and which is manifestly untrue in the only sense in which it could here apply, viz. in the separate pre-existence of the vegetable world to the animal, and even in the commencement of animal life with the simplest forms. This is, however, an important confession. If this be all that even the "Edinburgh Review" can adduce, the cause may be well pronounced hopeless; and we may trust that attempts to uphold it will not be repeated.

3. Such ideas however are fully in keeping with those of another writer in the same journal, who, while he assigns me very undeserved honours in science, seems incapable of perceiving the nature of my arguments, or appreciating the grander bearings of physical philosophy, and to whose apprehension the simple principles of inductive generalisation and of natural theology, as I have endeavoured to expound them, appear startling "paradoxes"!

[1] Edinb. Rev. July, 1858.

4. The critique first referred to too manifestly betrays a disposition to bow to the ignorance and bigotry of the Puritanical school, one of whose more ardent supporters in the "British and Foreign Quarterly,"[1] is only worthy of notice, in that he nowhere pretends to deny, but distinctly admits, *the existence* of the direct contradiction, though he throws the blame of it *on the geologists!* But these, as well as other instances, afford marked symptoms of the extent to which that school feel, and are beginning to confess the formidable nature of the inroad made on their Judaical tenets by the advance of sound geology.

5. In this kind of discussion, a certain class of minds have been prone to entangle themselves in a metaphysical puzzle, arising out of the idea of *time:* and to allege that, because geological periods were not measured by the standard of human consciousness, they may therefore have been really compressed into almost momentary duration, — as if that would in any degree affect the succession of geological events, or reconcile them to the Hebrew cosmogony.

6. But the most extraordinary instance of the total misconception, not only of all geological evidence, but of the first principles of all philosophical investigation, has been exhibited in a recent publication[2] by an author who has hitherto enjoyed a reputation as a naturalist, — in which he makes a serious attempt to revive what is the same practically (though he repudiates it abstractedly) with the old dream of organic fossils

[1] No. liv, p. 421.

[2] Omphalos, &c. By P. H. Gosse, F.R.S., 1857.

being altogether delusive sports of nature; he regards them, in fact, as mere *resemblances* of real forms, produced in the miraculous process of the simultaneous and sudden creation of the whole world and all things in it in the Mosaic six days.

This speculation affords a singular specimen of the extent to which one absurdity may be speciously justified by stringing on to it another still more preposterous. The argument stands, in fact, thus:—The first of existing plants, animals, and men were all *created* suddenly out of nothing: *therefore* full-grown; *therefore* bearing all the marks of previous growth and development, as *e. g.* trees with concentric rings, Adam and Eve[1] with the umbilicus (ὀμφαλός, hence the title of the book). In like manner, *therefore*, the crust of the earth exhibits like fallacious marks of successive deposits: *therefore* those deposits show fallacious organic remains; *therefore* those remains display individually the fallacious appearances of successive growth! &c. &c.

There is in all this a kind of perverted ingenuity, which reminds us more than anything of the occasionally acute theories of mental aberration: while the author's "pro-chronic" periods seem possibly allied to the recondite metaphysical idea before adverted to.

If we could reason at all on such a visionary basis, it would seem rather a more natural conclusion that miraculously created forms should *be free from* all such marks of progressive growth, to evince their supernatural origin.

[1] This was the recondite idea long ago so elaborately discussed by Sir T. Browne, "Vulgar Errors," book v. ch. 5. 1646.

But the radical fallacy lies in the assumed idea of *sudden formation* out of nothing, which is altogether alien from science, and inadmissible into its nomenclature: unless (as custom has in some manner sanctioned it) the term "creation" be regarded as merely designed to cover our ignorance of the actual mode of origin.[1]

The whole speculation merely affords a good exemplification of the preposterous consequences to which any attempt to *reason* on the theological and metaphysical idea of "creation" inevitably must lead us; and thus only suggests the stronger caution against all such misuse of the term and of the idea, as must arise from the introduction of it into *science.*

But it is needless to add more, as this theory has received so able and merited a demolition in the anniversary address to the Geological Society, by its late President, Major-Gen. Portlock, R.E., F.R.S. &c., 1858.

7. But there have been some recent discussions *apparently* belonging to the same class, which exhibit characteristics of so peculiar a kind, as to induce rather a different estimate of their *real* tendency from that which their *professions* might lead us to entertain. So complete, in fact, is the concession these writers really make of all the substantial points, so manifest the evasions and subterfuges they exhibit, that we can only regard them as disguised allies, merely offering a nominal homage to the prejudices of a religious party; a profession in name, covering a denial in substance, as transparent as that of the Jesuit commentators on

[1] See Unity of Worlds, 2nd ed. p. 453.

Newton, in their professions of unlimited deference to the ecclesiastical dogmas: — "Cæterum latis a summis "pontificibus contra telluris motum decretis nos ob- "sequi profitemur;" — while they directly contravened them in promulgating, illustrating, and demonstrating the prohibited doctrines. So at the present day, the writers alluded to make great boast of evincing the entire "reconciliation of Science and Scripture," the "Harmony of the two Records," and the like, *in their title-pages;* while their *whole argument* directly nullifies such professions, or pretends to fulfil them in so singularly accommodating a sense, as amounts to a virtual abandonment of the pretension.

These remarks are suggested by several recent works, more especially by a late much commended publication of the Ven. Archdeacon Pratt[1], a writer so highly eminent in mathematical and mechanical science, as to claim for any views he may advance the most respectful consideration, while his name gives currency to his opinions with a considerable religious party.

The whole view of the subject presented in the work referred to is this: — As the Scripture in former times *seemed* opposed to the motion of the earth and the existence of antipodes, — so now it *seems* opposed to the incalculable antiquity of the earth, — to the existence of light and living creatures "before the six days," — to death before the fall, — to "specific centres of creation," — and the like; and *seems* to assert an universal deluge,

[1] Scripture and Science not at Variance. By J. H. Pratt, Archdeacon of Calcutta, 2nd ed. Lond. 1858.

and other points of a physical kind. But all this, in reality, only from "*false interpretations*," from which it is *now* "*delivered.*" So again it *seems* to teach a common origin of the human race, — a common primeval language, — and other similar tenets. But these, we are told, are only "*false conclusions* deduced by its votaries;"—false *interpretations*, which yet are identical with the *very words;* — fallacious *conclusions*, which, notwithstanding, are directly asserted in the *very terms:* and, nevertheless, the "historical authority" of the passages, and their "surpassing importance," are to be strictly maintained!

ESSAY II.

NATURE AND REVELATION.

NATURE AND REVELATION.

§ I.—THE ORDER OF NATURE AS BEARING ON THEOLOGY IN GENERAL.

§ II.—THE NATURAL AND THE SUPERNATURAL.

§ III.—REVELATION AND MIRACLES.

ESSAY II.

NATURE AND REVELATION.

§ I.—THE ORDER OF NATURE AS BEARING ON THEOLOGY IN GENERAL.

HAVING, in the last essay, briefly surveyed the main features which have characterised the progress of physical science in successive ages, in regard to its influence more or less immediate on religious belief, and having glanced at the main arguments and inferences of a theological kind, which have been directly or indirectly connected with its gradual disclosures in past times, we now proceed to consider more in detail *the nature of those reasonings*, and the legitimate conclusions founded on physical knowledge, in its existing stage of advance, which have reference to these more sublime contemplations.

Recapitulation of preceding argument.

With this view, it will be necessary briefly to recapitulate the argument before pursued. In the earlier part of the former essays, after having discussed the nature and principle of inductive reasoning [1], and the theory of cause and effect [2], involving the rejection of the idea of efficient power, as among the last lingering remains of the old mysticism,—after having dwelt on the ultimate unity of principle which must really pervade all nature, as it pervades all science, the interpreter of nature [3], I proceeded to illustrate and enforce [4] the grander argument of universal and perpetual harmony and adjustment of physical causes, which leads to the recognition of a *moral cause.*

Invariable laws.

The very essence of the whole argument is the invariable preservation of the principle of *order:* not necessarily such as we can directly recognise, but the universal conviction of the unfailing subordination of everything to *some* grand principles of *law,* however imperfectly apprehended or realised in our partial conceptions, and the successive subordination of such laws to others of still higher

[1] Unity of Worlds, Essay I. § I.
[2] Ibid. § IV.
[3] Ibid. §§ II. III.
[4] Ibid. § V.

generality, to an extent transcending our conceptions, and constituting the true chain of universal causation, which culminates in the sublime conception of the Cosmos.

No real exceptions.

It is in immediate connection with this enlarged view of universal immutable natural order, that I have regarded the narrow notions of those who obscure the sublime prospect, by imagining so unworthy an idea as that of occasional interruptions[1] in the physical economy of the world.

The only instance considered was that of the alleged sudden supernatural origination of new species of organised beings in remote geological epochs. It is in relation to the broad principle of law, if once rightly apprehended, that such inferences are seen to be wholly unwarranted by science, and such fancies utterly derogatory and inadmissible in philosophy; while, even in those instances properly understood, the real scientific conclusions of the invariable and indissoluble chain of causation stand vindicated in the sublime contemplations with which they are thus associated.

[1] Unity of Worlds, Essay I. § v. and Essay III.

Essential principle of universal order

To a correct apprehension of the whole argument, the one essential requisite is to have obtained a complete and satisfactory grasp of this *one grand principle of law pervading nature, or rather constituting the very idea of nature*;—which forms the vital essence of the whole of inductive science, and the sole assurance of those higher inferences, from the inductive study of natural causes, which are the indications of a supreme intelligence and a moral cause.

The whole of the ensuing discussion must stand or fall with the admission of this grand principle. Those who are not prepared to embrace it in its full extent, may probably not accept the conclusions: but they must be sent back to the school of inductive science, where alone it must be independently imbibed and thoroughly assimilated with the mind of the student in the first instance.

Limits to the study of nature.

On the slightest consideration of the nature, the foundations, and general results of inductive science, we see abundant exemplification at once of the *legitimate objects* which fall within the *province* of physical philosophy, and the *limits* which, from the nature of the case, must be imposed on its investigations. We recognise the powers of intellect fitly

employed in the study of nature, but indicating no conclusions *beyond* nature; yet pre-eminently leading us to perceive *in nature*, and in the invariable and universal constancy of its laws, the indications of universal, unchangeable, and recondite arrangement, dependence, and connection in reason.

It is the province of science to investigate nature, —it can contemplate nothing but in connection with the order of nature,— it cannot point to anything out of nature.

But if in any case the resources of explanation on inductive and natural grounds seem exhausted,— if philosophy, after examining any outstanding case, acknowledge it beyond its *existing* powers, it is not therefore beyond all investigation. If at any particular point science find a *present* limit, what is beyond science is not therefore beyond nature;— it is only unknown nature; when we cease to trace law, we are sure that law remains to be traced.

The natural and the supernatural.

When science imposes a limit, it can do so only *provisionally*. The case may be beyond present views, but not beyond future discovery. The limits of the study of nature do not bring us to the confines of the *supernatural*.

Whatever amount of the wonderful and marvellous we may encounter in the research into nature, or the investigation of facts, those cases of wonder (assumed to be pefectly established as to the facts or appearances,) can only to the eye of reason be left as extraordinary phenomena awaiting their explanation: which, — if they be only properly examined, — they will be sure at some future period to receive.

No limits to nature.

It was (as before remarked) the argument of Spinoza that we cannot pretend to determine the boundary between the natural and the supernatural, until the whole of nature shall be open to our knowledge. But in the then state of physical philosophy it was not perceived that no extension of natural knowledge could possibly enable us to discover the supernatural, the very conception of which belongs to a totally different order of things; — or that, as we now acknowledge, the inductive principle can point to no such boundary, and recognise no such distinction, in any objects of its investigation.

From the very conditions of the case, it is evident that the *supernatural* can never be a matter of *science* or *knowledge*; for the moment it is brought within the cognisance of reason it ceases to be supernatural.

If nature could really terminate anywhere, there we should not find the *supernatural*, but a chaos, a blank, — total darkness, — anarchy, — atheism.

Supreme reason in nature.

But though the utmost extension of inductive science can only lead us further into the realm of natural order, so far from being at *variance* with, or *beyond*, the idea of *natural order*, nothing can be more pre-eminently in *accordance* with it than the grand inference from those highest generalisations in the study of physical causes which lead to what is essentially manifested in their invariable uniformity and recondite dependence,—the existence of universal reason and supreme intelligence.

It thus belongs properly to the function of reason to acknowledge universal reason, — of intellect to recognise infinite intelligence, as pre-eminently harmonising with its own operations, by which the indications of universal mind are discovered, or rather as that of which itself is but an humble part and reflection.

Causation.

From what has been before observed, it is readily seen how little satisfactory the simple and positive view of causation must be to the imaginative and mysticising tendency of the human mind, which is ever seeking some conception of efficient

power [1], instead of a necessary connection in reason and generalisation *only*.

First and second causes.

It is to this tendency that we may trace the lingering disposition to dwell on the old antithesis of "First Cause" and "Second Causes;" and hence to keep up the vulgar prejudice against the study of the latter as injurious to the belief in the former.

Feuerbach's view.

This idea forms a prominent topic in the remarkable speculations of Feuerbach [2], who traces it to a supposed fundamental opposition between internal religious sentiment and the contemplation of external nature: so that, as he says, "religion is abolished "when second causes are interposed between God "and man," nor can it be denied that from the confused way in which these subjects have been constantly treated by popular writers, he is able to find

[1] Sir W. Hamilton, after enumerating not less than *seven* different theories of causation, at length proposes his own;—which a professed admirer admits is not at all more satisfactory! (Discussions, &c., p. 611. See Mansel's "Bampton Lectures: Oxford, 1858," 382, &c., and Prolegomena, 135, 309.)

Another not less eminent metaphysician proposes the following:—"We are unable to conceive an absolute commencement of phenomena; "hence we suppose the *same phenomenon* previously *existing under* "*another form*," &c. . . . which constitutes the succession of cause and effect! (Cousin, "Hist. de la Philos. du Dix-huitième Siècle," leçon 19.)

[2] Essence of Christianity, transl. p. 180.

numerous examples apparently corroborative of his view. The whole tenor of my previous argument[1], is, however, directed to show that the fundamental idea is grounded on an entire misconception, and that the apparent opposition disappears before the simplicity of advancing physical truth, and the consideration that the terms "First" and "Second Causes" must refer to classes of ideas wholly distinct from each other. That the study of physical causes is the sole real clue to the conception of a moral cause; and that physical order, so far from being opposed to the idea of supreme intelligence, is the very exponent of it.

Narrow views of the argument from design.

We thus see the importance of taking a more enlarged view of the great argument of natural theology; — and the necessity for so doing becomes the more apparent, when we reflect on the injury to which these sublime inferences are exposed, from the narrow and unworthy form in which the reasoning has been too often conducted.

Thus, to take a prominent instance, it is from the restricted form in which the argument from design has been commonly put, and the untenable inferences

[1] See "Unity of Worlds," Essay I. § v.

to which it has been stretched, that the objections raised by Hume and others acquire any force.

Hume's objections.

The reasonings referred to are those contained in his well-known "Dialogues on Natural Religion," where we may take, as characteristic instances, the following expressions: —

"If we see a house we conclude with the greatest "certainty that it had an architect. . . . But surely "you will not affirm that the universe bears such a "resemblance to a house, that we can with the same "certainty infer a similar cause. . . . ."

Again: — "But can you think, Cleanthes, that your "usual philosophy has been preserved in so wide a "step as you have taken, when you compared to the "*universe*, houses, ships, furniture, machines; — "and from their similarity in *some* circumstances, "inferred a similarity in their causes? Thought, "design, intelligence, such as we discover in men and "other animals, is no more than *one* of the springs "and principles of the universe, as well as heat "and cold, attraction or repulsion, and a hundred "others which fall under daily observation. It is an "active cause by which some particular parts of "nature, we find, produce alterations on other parts.

"But can a conclusion, with any propriety, be transferred from parts to the whole?"[1]

In these and the like remarks, Hume doubtless betrays his not unusual neglect of precision, and lays his argument easily open to criticism: and it is triumphantly replied[2] that the real argument is not for "similarity," but for "analogy."

Cases not parallel.

But call it by what name we will, the essential point is, that we cannot reason from the case of a work of human design, which is a definite contrivance, to answer a specific known purpose, the work of a finite agent, limited by the circumstances and conditions of the case,—to the structure of the infinite universe, in which we can infer no final design or purpose whatever: which is perpetual in its adjustments, offering no evidence of beginning nor end, —only of continual orderly changes; however the limited evidence in some of its parts, of adjustment of means to ends, may warrant the conjecture of other higher unknown purposes.

Narrow view of personal agent.

The argument, as popularly pursued, proceeds on the analogy of a personal agent, whose contrivances are

[1] Dialogues on Nat. Religion, pt. ii.; Works, vol. ii. pp. 446, 448.

[2] Mansel's "Bampt. Lect." p. 354.

limited by the conditions of the case and the nature of his materials, and pursued by steps corresponding to those of human plans and operations: — an argument leading only to the most unworthy and anthropomorphic conceptions. Yet such have been the now confessedly injudicious modes of expression adopted by some approved writers on the subject.

Necessity for wider views.

The satisfactory view of the whole case can only be found in those more enlarged conceptions which are furnished by the grand contemplation of cosmical order and unity, and which do not refer to inferences of the *past*, but to proofs of the *ever present* mind and reason in nature.

The book of nature.

If we read a book which it requires much thought and exercise of reason to understand, but which we find discloses more and more truth and reason as we proceed in the study, and contains clearly more than we can at present comprehend, then, undeniably, we properly say that thought and reason *exist in that book* irrespectively of our minds, and equally so of any question as to its author or origin. Such a book confessedly exists, and is ever open to us in the natural world. Or, to put the case under a slightly different form; — when the astronomer, the physicist,

the geologist, or the naturalist, notes down a series of observed facts or measured data, he is not an *author* expressing his own ideas,— he is a mere *amanuensis* taking down the dictations of nature: his observation book is the record of the thoughts of *another mind:* he has but set down literally what he himself does not understand, or only very imperfectly. On further examination, and after deep and anxious study, he perhaps begins to decipher the meaning, by perceiving some law which gives a signification to the facts, and the further he pursues the investigation up to any more comprehensive theory, the more fully he perceives that there is a higher reason, of which his own is but the humble interpreter, and into whose depths he may penetrate continually farther, to discover yet more profound and invariable order and system; always indicating still deeper and more hidden abysses yet unfathomed, but throughout which he is assured the same recondite and immutable arrangement ever prevails.

Reason exists in the order of nature.

That which it requires thought and reason to understand, must be itself thought and reason. That which mind alone can investigate or express, must be itself mind. And if the highest conception

attained is but partial, then the mind and reason studied is greater than the mind and reason of the student. If the more it be studied the more vast and complex is the necessary connection in reason disclosed, then the more evident is the vast extent and compass of the intelligence thus partially manifested; and its reality as *existing in the immutably connected order of objects examined,* independently of the mind of the investigator.

This distinct from the origin of nature.

But considerations of this kind, just and transcendently important as they are in themselves, give us no aid in any inquiry into the *origin* of the order of things thus investigated, or the *nature,* or other attributes, of the mind evinced in them.

Limits of natural theology.

The real argument for universal *Intelligence,* manifested in the universality of order and law in the material world, is very different from any attempt to give a form to our conceptions, even by the language of analogy, as to the *nature* or *mode of existence,* or operation of that intelligence: and still more different from any extension of our inference from what *is,* to what *may have been,* from *present* order to a supposed *origination,* first adjustment, or planning of that order.

By keeping these distinctions steadily in view, we appreciate properly both the limits and the extent and compass of what we may appropriately call COSMO-THEOLOGY.[1]

[1] On this point I will cite the opinion of a theologian who has been looked up to as of the highest orthodoxy and learning in the English church, and who will not be suspected of any undue bias towards *philosophical* views,—the late Bishop Van Mildert. His testimony, therefore, is the more striking to what is here maintained as the legitimate view of a strict and positive philosophy in regard to natural theism. "All "researches into nature," he says, "terminate abruptly; and we must "stop short at an immeasurable chasm between the creature and the "Creator." . . . . (Boyle Lectures, vol. ii. p. 65.) Again: "The "study of *physics* has nothing in common with *theology* properly so "called, either as to its *principles*, or the *subjects* on which it is em- "ployed, or the *end* which it proposes. In physics it is impossible to "proceed beyond second causes, or the instrumental agents of the ma- "terial world. The first cause will still be as remote as ever from our "view, and the immaterial world will still elude our researches." (Ibid. p. 97.) . . . . . "In short, natural philosophy being confined to sen- "sible and material objects, cannot attain to even a glimpse of spiritual "truth; and consequently is incapable, *per se*, of instructing men in "what it most concerns them to understand, — the knowledge of God, "or even of man, so far as he is a spiritual and intellectual being." (Ibid. p. 98.)

He then proceeds to extend the same inference from the physical to the moral sciences.

If it be objected that this view is at variance with St Paul's assertion (Rom. i. 19, &c.), divines of the same school reply, that in fact the Apostle's argument is not an assertion of an abstract philosophical conclusion, but of the *practical* truth that the heathen themselves *acknowledged* and *professed* a belief in a Deity (on whatever grounds) and yet did not act up to it. Even in a reasoning point of view, the Apostle,

Appeal to moral science.

Admitting, then, at any rate, the *very limited* nature and extent of the conclusions derivable from physical philosophy, it has been the aim of a considerable section of writers on Natural Theology to contend that higher views of the Divine nature and perfections are to be obtained from the contemplation of metaphysical and moral truth.[1]

perhaps, appeals to the speculative philosophy then prevalent; but the present remarks refer to modern inductive science, which is more limited in its aims.

I have elsewhere noticed that some other writers of much authority in very different schools of theology, have agreed in the same opinion, and have even carried it to the extreme of denying *any inferences whatever* from natural science as bearing on these higher views. This, I apprehend, arose from their deficiency in physical knowledge, which disqualified them from perceiving the great principle of physical order and its consequences as the indication of, or, rather, as synonymous with, reason and mind in the natural world. See "Oxford Essays," 1857, Essay V.

[1] It has even been common with writers of this class to express an absurd kind of jealousy of physical science, and to demand, in a hostile tone, "What right has philosophy to build on material principles alone, "and not to take mind into account?" (Mansel's "Bampton Lectures," Oxford, 1858, pp. 190, 191) and to contend that moral truths "are "facts of experience to the full as real and certain as the laws of the "planetary motions and chemical affinities."

It is simply amusing to notice the self-complacent ignorance of a writer, who thinks he is hitting hard at physical science by dilating with satisfaction on the humiliation of the astronomer who can compute the remotest future position of the planets, but (sad mortification of his vanity!) cannot predict the state of his own health or the direction of the wind to-morrow! But it is far from amusing to find such

The phenomena and laws of mind ought undoubtedly to be taken into account, so far as they have been traced, as indicative of higher mind, as those of moral sense and conscience are of a higher principle of moral order and source of goodness. But on these subjects we can hardly be said really to possess any fixed data or determinate laws on which to reason, until different parties shall be as well agreed even on the most elementary principles of moral and metaphysical, as they are on those of physical, truth.

The actual claims of moral science to establish a foundation for these more sublime truths are very slight: The old *à priori* metaphysical theistic arguments and schemes of the Divine perfections, (especially from the exhaustive criticisms of Kant,) have been generally discredited, not only by philosophers [1],

sentiments endorsed by an able and learned writer, in a work produced at the present day under the special sanction of the university of Oxford. And it is unjustifiable, in the present state of knowledge, for any one to pretend to reason on such topics, who betrays such misapprehension of the very nature and principles of all physical philosophy, as to argue, "*if* it be true that the researches of science *tend towards* (though who "can say they will ever reach?) the establishment of a system of fixed "and orderly recurrence," &c. &c. (Mansel's "Bampton Lectures," 189.)

[1] See above, Essay I. § IV.

but by the admission of the most orthodox divines[1]; in the views of the same kind which others have sought to substitute, we can find little which seems more satisfactory.

Higher sources of religious conviction.

To attempt to reason from law to volition, from order to active power, from universal reason to distinct personality, from design to self-existence, from intelligence to infinite perfection, is, in reality, to adopt grounds of argument and speculation entirely beyond those of strict philosophical inference, and it would be more consistent openly to avow the insufficiency of scientific views for realising those loftier contemplations and theistic conceptions than to gloss over the difficulty by an ambiguous and mystical metaphysical phraseology; and owning the inadequacy of reason, to recur to faith. And, in fact, the most candid of such reasoners usually, in the end, fall back on the simple appeal to the common feeling and general religious sense of mankind in the belief in a Deity, an appeal which, however just in itself, is simply a confession of the insufficiency of *philosophical* reasoning — the only point in dispute.

[1] For a fuller discussion of this subject, see my Essay, No. V. in the "Oxford Essays" for 1857.

But to whatever extent any such metaphysical and moral theistic systems may be supposed established, still, referring, as they do, to an order of truths essentially distinct from those of the physical world, and of a kind almost wholly internal, ideal, and subjective, it is manifest, from the nature of the case, they can in no way affect, or come into collision with, the general conclusion of universal order evinced by physical science, though they can hardly fail to confirm it.

Moral truths not at variance with physical.

At the utmost a physico-theology can only teach a supreme mind evinced in the laws of the world of matter, and the relations of a Deity to physical things essentially as derived from physical law.

All philosophy results in law and order.

A moral or metaphysical theology (so far as it may be substantiated) can only lead us to a Deity related to mind, or to the moral order of the world.

Physical science may bring us to a God of nature, moral or metaphysical science to a God of mind or spirit. But all philosophy is generalisation, and therefore essentially implies universal order; and thus, in these sublime conclusions, or in any inferences we may make from them, that principle must hold an equally prominent place. If we indulge in

any speculations on the Divine perfections we must admit an element of immutable order as one of the chief.

Divine attributes as learned from natural theology.

The firm conception of the immutability of order is the first rudiment in all scientific foundation for cosmo-theology. Our conclusion cannot go beyond the assumption in our evidence. Our argument can lead us only to such limited notions of the Divine attributes as are consistent with the principle of "Cosmos." If we speak of "wisdom," it is as evinced in laws of profoundly adjusted reason; if of "power," it is only in the conception of universal and eternal maintenance of those arrangements; if of "infinite intelligence," it is as manifested throughout the infinity of nature; and to whose dominion we can imagine no limit, as we can imagine none to natural order.

Limited view of power.

If we attempt to extend the idea of "power" to infinity, or what we call the attribute of "Omnipotence," in conformity with a strictly *natural* theology, it can only be from the boundless extent to which we find these natural arrangements kept up in incessant activity, but unchangeable order; — the unlimited, and we believe illimitable, expansion, both

in time and space, of the same undeviating regularity with which the operations of the universally connected machinery is sustained. The difficulty which presents itself to many minds, how to reconcile the idea of *unalterable law* with *volition* (which seems to imply something changeable), can only be answered by appealing to those immutable laws as the sole evidence and exponent we have of supreme volition; a volition of immutable mind, an empire of fixed intelligence.

Law and volition.

The simple argument from the invariable order of nature is wholly incompetent to give us any conception whatever of the Divine Omnipotence except *as maintaining, or acting through, that invariable universal system of physical order and law.* Any belief which may be entertained of a different kind must essentially belong to an order of things wholly beyond any conclusions derived from physical philosophy or cosmo-theology. A Theism of *Omnipotence in any sense deviating from the order of nature* must be entirely derived from *other teaching:* in fact it is commonly traceable to early religious impressions derived, not from any real deductions of reason, but from the language of the Bible.

Omnipotence in the order of nature.

Natural theology not supernatural.

Natural theology does not lead us to the *supernatural*, being itself the essential and crowning principle of the *natural:* and pointing to the supreme moral cause or mind in *nature: manifested* to us as far as the invariable and universal series and connexion of physical causes are disclosed: *obscured* only when they may be obscured; hidden only when they may be imagined to be interrupted. The supernatural is the offspring of ignorance, and the parent of superstition and idolatry: the natural is the assurance of science, and the preliminary to all rational views of Theism.[1]

Higher theism beyond natural science.

The highest inferences to which any physical philosophy can lead us, though of *demonstrative force* as far as they reach, are confessedly of very *limited extent.* It is a mistake to confound with the deductions of science these more sublime conceptions and elevated spiritual views of a Deity,—a personal God,—an Omnipotent Creator,—a moral Governor,—a Being of infinite spiritual perfections,—holding

[1] An able critic puts the case very forcibly and concisely: "Superstition consists not in the belief in this (a supreme) cause; but in "the supposition that its action is occasional rather than eternal, partial rather than universal."—*Edinburgh Review*, No. ccxviii. p. 485.

relations with the spirit of man;—the object of worship, trust, fear, and love;—all which conceptions *can originate only from some other source than physical philosophy.* These are conclusions which science must confess entirely to transcend its powers, as they are beside its province to substantiate.

Limitation of inferences not a denial of higher truths.

I have spoken of the necessary *limits* of all scientific deduction. To obviate serious misconception it is material to insist on the distinction that while the boundary line, by which the deductions of science are so necessarily limited, is thus carefully drawn, this is by no means to be misunderstood as if it were meant as a *negation* of higher truths; but only that they are of *another order.* On the contrary, the point especially insisted on in the former essays was, that the extremely limited extent of strict inferences from the order of nature forms the very ground for looking to *other* and *higher sources* of information and illumination if we would rise to any of those more exalted contemplations. In any conceptions of the nature or attributes of God or man's relations to Him we can only look to other sources of information and conviction of quite a different order

from those which science can furnish. Those higher aspirations which so many pure and elevated minds own, can only be satisfied by disclosures belonging not to the province of natural philosophy or any deductions from it—whose utmost limits in this respect we have thus far endeavoured to indicate, — but to something beyond, and properly belonging to the higher jurisdiction of moral or spiritual convictions. But cosmo-theology, though *incapable of anticipating* any such sublime truths of a moral and spiritual revelation, is in *no way opposed* to them; but, on the contrary, as far as it extends, may be serviceable, as in some measure opening the way for them.

Idea of creation not from science.

It has been already observed that strict science offers no evidence of the *commencement* of the existing order of the universe. It exhibits indeed a wonderful succession of *changes*, but however far back continued, and of however vast extent, and almost inconceivable modes of operation, still *only changes*; occurring in recondite *order*, however little as yet disclosed, and in obedience to physical laws and causes, however as yet obscure and hidden from us. Yet in all this there is no *beginning* properly so called: no commencement of existence when nothing existed

before: no *creation* in the sense of origination out of non-existence, or formation out of nothing:—Even without referring to that metaphysical *conception*, or more properly metaphysical *contradiction*,—to imagine anything which can be strictly called a *beginning*, or first formation, or endowment of matter with new attributes, or in whatever other form of expression we may choose to convey any such idea,—*is altogether beyond the domain of science*, as it is an idea beyond the province of human intelligence. The nebular theory may be adopted in cosmology, or the development hypothesis in palæontology—or any other still more ambitious systems reaching back in imagination into the abysses of past time; yet these are only the expositions of ideas theoretical and imaginary, but still properly within the domain *of physical order*, and even by them we reach no proper commencement of existence. More than half a century ago, Dr. Hutton[1] announced the first ideas of a natural geology, and boldly declared, "In the economy of the "world I can find no traces of a beginning, no pros- "pect of an end," and all the later progress of science has pointed, as from its nature it must do, to the

[1] Lyell's "Principles," p. 54, 8th ed.

same conclusion, nor can any other branch of science help us further back than geology. In a word, geology (as Sir C. Lyell has so happily expressed it) is "the autobiography of the earth," but like other autobiographies it cannot go back to the *birth*.[1]

Successive creations

But the successive introductions of new species of organic life in the epochs of past terrestrial changes are imagined by some to be instances of direct intervention. This question was indeed discussed in the former essays[2] but with reference to the object of the present, it may be desirable briefly to place before the reader the principal points of the case; from which it will be seen that the argument *fails* in several essential particulars.

not arbitrary;

In the first place such commencement of new forms of existence were events not arbitrary, nor discon-

[1] By the upheaval of strata, says Humboldt, "an animal and a vege-table existence which has passed away is brought to light. . . . . the distinction of old organic forms and the appearance of new. A few of the older still show themselves for a time among the newer forms. In the narrowness of our knowledge of original production, in the figurative language with which this circumscription of view is concealed, we designate as *new creations* the historical phenomena of change in the organisms tenanting the primæval waters and the upheaved dry land." — HUMBOLDT'S *Cosmos*, p. 289, 1st transl. 1845.

[2] See "Unity of Worlds," Essay III. § IV. p. 503, 2nd ed.

nected, but regularly recurring in successive epochs, always connected with the other physical changes going on in these epochs, however little the laws connecting and regulating them are as yet known; but this mere fact of the frequent *regular* recurrence of such changes proves distinctly that they were not casual *suspensions* or *interruptions* of the *order of nature*, but *essential parts* of it: As indeed is rendered more undeniably evident by the circumstance that they were in every instance not isolated acts, but the *commencement* and establishment of a series of *simply natural results*,—a *succession* and *continuance* of the species so generated, by ordinary natural causes.

part of some general law.

On all sound inductive principles, these events must be held to have taken place in strict accordance with natural laws and with the regular order of physical causes, however little we may at present be able to trace precisely what the laws of their production actually were: and even without alluding to any theory of development, we must look to some great unknown law of life, of which the permanence of species under certain conditions, is only a subordinate part and particular case.

Not interruptions,

but commencement of natural order.

But on any supposition, to apply the term "miracle" to a series of events repeatedly occurring, and *always productive of a regular series of natural consequences,* would be a change in the use of language little accordant with the usual professions of those who advocate the belief in such interposition; and in other respects it is obvious that these changes in the natural world, before the existence of the human race, were wholly alien in their entire character and circumstances from any of those alleged supernatural manifestations, with which some would compare them.[1]

Not miraculous.

Metaphysical argument for creation,

The idea of the *first origin* of matter, or of *creation out of nothing,* as it certainly has no physical evidence, has by some been supported on so-

[1] Some valuable remarks bearing on these topics will be found in an interesting and able work of Sir H. Holland, and in which he urges the maintenance of the great law of unity of composition as co-ordinate with that of diversity of species. ("Chapters on Mental Physiology," p. 223.) And while he makes some just criticisms on the theories of Lamarck and of the "Vestiges," as to certain hypothetical modes of expression in which they indulge (Ibid. p. 242), he is yet disposed to allow the just claims of fair scientific speculation on such subjects; and especially as to the unknown cause of life and generation, he expressly avows the truly philosophic expectation that, by the progress of discovery, it may come to be as little mysterious as that of nutrition and other best known processes. (Ibid. p. 230.)

called *metaphysical* grounds; chiefly by the argument that the eternity of matter would imply its *self-existence*, or invest it with the attributes of Divinity.

unintelligible;

But both the idea of self-existence and that of creation out of nothing are equally and hopelessly beyond the possible grasp of the human faculties, how then can we pretend to reason, or infer anything respecting them? In a word, we cannot advance a single real step from the *bare negation* of physical evidence of the origin of matter.

inconsistent.

Feuerbach [1] reflects on the low views of a certain class of writers, "the narrow rationalising man who "does not look at the Cosmos," as being prone to adopt the notion of a supernatural "creation" in the first instance, and thenceforth allowing the created world, once adjusted, to go on by itself. Thus, as he says, "inconsistently admitting supernaturalism in "one instance, but denying it in all others." The idea of "creation" he observes, implying an act of simple volition or thought, in no way *accounts* for the origin of the world of matter, which cannot arise out of *thought*.[2] But this applies to *metaphy-*

[1] Essence of Christianity, p. 190.

[2] Ibid. p. 84.

sical, not to physical, speculation, which, as I have expressly contended, in no way pretends to ascend to the idea of a first origination of material existence.[1]

Idea of creation solely from revelation.

In truth, the more attentively we consider the subject, the more clearly does it appear that both the term "creation" and any idea we may attach to it are really derived solely from impressions of a *religious* nature. And as the source of such a conception is entirely distinct from any teaching of science, so it becomes important that the representations thus obtained should never be confounded with scientific conclusions, or mixed up with the body of physical truth; but kept carefully and essentially distinguished.

[1] The belief in a creation of matter *out of nothing* was altogether unknown to the ancient Greek philosophy. (See Plato, "Timæus," p. 37; Aristot. "Phys." viii. 1.) Among the modern metaphysicians, Fichte contends that such an idea is inconsistent with the philosophy of the absolute, and denounces it as the fundamental error of metaphysicians. He traces it to Jewish, or even heathen sources. (Works, v. 479.)

Sir W. Hamilton thinks it only conceivable as "the evolution of "existence from possibility into actuality, by the fiat of the Deity." (Disc. 620.) But how does this help the difficulty?

Mr. Mansel, after citing these authorities, much more truly admits that "creation is to human thought inconceivable." ("Bampt. Lect." 79.)

The idea of creation is wholly one of *revelation*, accepted by *faith*; and if guided by Christianity the assertion of it will rest in the *general* expression, and will never degenerate into an admixture with the obsolete cosmogonies of older dispensations: "*By faith* we understand that the worlds were "framed by the Word of God."[1]

[1] Heb. xi. 3.

§ II.—THE NATURAL AND THE SUPERNATURAL.

Imagined interruptions of the order of nature.

IN former essays [1] I adverted to the case of some who have imagined the possibility of occasional interruptions in the grand scheme of universal order, law, and causation, thus producing, as far as they might extend, a corresponding interruption and contravention to the evidence of supreme intelligence. Such ideas can only occur to those who have failed to grasp the great inductive principle of invariable uniformity and law in nature.

Marvellous events.

In all ages, it is true, cases of unusual and extraordinary events have occurred which become objects of wonder, but are very differently viewed, according to the state of knowledge. Even in the present day, such instances, among the ignorant, credulous, or prejudiced, are often associated with unworthy superstitions.

[1] Unity of Worlds, Essays I. and III.; see especially pp. 112, 507, 2nd ed.

But allowing for such exceptions, it is beyond question the prevalent, and, we may say, even the universal opinion, among all unbiassed, educated, and thinking persons, that "the age of miracles has ceased," that in the present day prodigies and marvels do not occur.

Yet, if we endeavour to analyse or explain this general persuasion, it seems difficult to account for it, or to reconcile it with some of the strongest tendencies of human prepossession in quite an opposite direction, or even with the belief of the same parties with respect to the past.

Disbelief in miracles at the present day.

Why, then, do men so universally and habitually discredit the occurrence of miracles at the present day? It is not that very marvellous events do not occur, or even some firmly believed to be miraculous by certain interested parties.

It is hardly even a question of evidence: the generality of mankind habitually assume antecedently that miracles are now inadmissible; and thus, that any reported case must be in some manner explained away. There is some general law of human belief, or rather disbelief, which influences men far more powerfully than can be counteracted by the strongest

allegations of particular apparent instances to the contrary.

ntecedent redibility.

In a general point of view, the importance to be attached to the consideration of *antecedent credibility* is often not sufficiently attended to. Yet, in all matters of ordinary belief, and even in scientific conclusions, our convictions, to a much greater extent than is sometimes imagined, depend more on our impressions as to the antecedent probability of events than on the actual details of testimony, or examination into facts. Such examination is often very slight, and yet we feel satisfied; it is just enough to give some exemplification, for instance, of the truth; which we embrace, rather from a general persuasion of its accordance with experience or established analogy; or, on the other hand, from the absence of such analogy and the violation of such probability, we are disposed to reject even apparently attested facts.

And the slightest reflection shows that it is almost entirely on this kind of previous conviction, as to the natural order of events, that the existing universal opinion rests as to alleged supernatural occurrences at the present day.

In this point of view, it becomes not irrelevant nor uninstructive, to glance at some of those cases of belief in the supernatural, which in past times enjoyed so considerable a reputation, and exercised so powerful an ascendency over men's minds.

Instances of former belief in supernatural influences.

For example, the belief in magic and witchcraft, at the present day the mere subject of a tale or a jest, within comparatively modern times was common, and within a few centuries universal; so that to call it in question was held impious and atheistic. A full and critical inquiry into the actual causes of the prevalent utter and universal disbelief on these points, would be highly instructive. All the obvious resources of explanation of particular alleged cases, as originating in delusion, imposture, exaggerated or wholly fabulous narratives and traditions, or the like, may easily be called into play: but it is not a rejection of particular instances on the ground of individual deficiencies of evidence, or well-grounded suspicions of fraud, delusion, or the like, which will explain the case: it is the common and total abandonment of the *very notion of all such influences*, except among the grossly ignorant and infatuated, that is to be accounted for, and the general fact

Magic and witchcraft

points to causes far more deeply seated than any such mere sceptical criticisms in particular instances.

pparitions.

To take another exemplification of the silent progress of opinion, how completely has the belief in apparitions (once so serious a subject of dispute), at the present day subsided into the physiology of ocular impressions; and even if there be apparent exceptions from time to time alleged, not easily reconcilable with that theory, how firm seems to be the general persuasion that they must really be explicable by some kind of physical causes, though *at present* we may be unable to conjecture precisely in what way.

Whence, then, it must be asked, arises this universal scepticism and rejection, not of this or that *particular instance*, but of the *very notion* of such appearances being really supernatural? Can we ascribe it to anything but some real advance in the general admission and conviction of the grand inductive principle, of the uniformity of natural causes?

Proceeding, however, downwards to our own times, and looking at the course of things around us at the present day, we may affirm that many truly mar-

vellous, and unaccountable events, open to examination, and well authenticated, are occurring from time to time, within daily experience, which in an ignorant age would, unquestionably have been set down as miraculous. Marvels no miracles.

It would be impossible to imagine greater *prodigies*, for example, or occurrences more truly *marvellous*, than those which, after every rational allowance for parties deceiving, or being deceived, or both together, all candid inquirers now admit to be substantiated in regard to somnambulism, and the kindred effects ascribed to mesmerism, or other allied influences; some of which partake in a startling degree of the characteristics of ancient miracles,—and by some have been even specially dwelt upon as the physical explanation of them.[1] And yet no unbiassed

[1] See a "Manual of Animal Magnetism," by A. Testé, M.D. transl. London, 1843, especially ch. i. § 3; also Menzel's "Literature of Germany," transl. vol. i. 196; and, as having an intimate bearing on the whole subject, no reader should omit to consult the profoundly interesting and instructive little volume, "Letters on the Truths contained in Popular Superstitions," by the late Herbert Mayo, M.D. Edin. 1849; also, for some very remarkable testimonies of eminent philosophers, and generally a very just estimate of the inductive evidence of the facts ascribed to mesmerism and other analogous causes, the reader is re-

and reflecting person now for a moment considers these phenomena to be miraculous.

Supposed spiritual influences commonly rejected.

If, indeed, some manifestations of an apparently analogous class to those last alluded to, have been imagined connected with *spiritual* influences of a peculiar kind, it has only been by some parties,

ferred to "The Philosophy of Necessity" by C. Bray, Esq., London, 1841, vol. i. p. 137, *et seq.*

Some valuable and truly philosophical remarks on these subjects, will also be found in the able and interesting little work of Sir H. Holland, before cited, "Chapters on Mental Physiology," 2nd ed. 1858.

The author makes some acute observations on mesmerism as due to nervous affection, and not really related to the individual operator (p. 93, *et seq.*); mentioning some material facts from personal observation (note, p. 102). After speaking of mesmerism and the like effects as referred by many to mysterious causes, he adds, with respect to electro-biology, "The results exhibited by the biologists, analogous in "kind and equally striking, are not alleged to proceed from any such "mysterious agency, but come before us fairly as the very curious effect "of excitement of various kinds upon certain peculiar temperaments." (p. 100.)

The author sets down spirit-rapping, table-turning, &c., as cases wholly different from those of mesmerism (note, p. 343); and for his remarks on the alleged supernatural character of such manifestations, see the same volume, p. 99.

In all such *apparent* phenomena there must of necessity be some actual muscular action, however unconscious, on the part of the operators.

Sir H. Holland mentions a case, which he personally examined, of the alleged analogous action of the divining rod, when he fully assured himself *there was an unconscious muscular action* on the part of the operator, causing the rod to twist. (Ibid. note, p. 92.)

strongly prepossessed in favour of such a theory, and whose view is entirely disputed by others, however fully they may admit the absolute facts. Moreover, the precise difficulty which the supporters of such views have to contend with, in gaining credit for their statements, is not the rejection of *testimony*, or the allegation of specific objections in particular instances, but arises from a general spirit of disbelief in influences of a supernatural kind, or the reality of spiritual agency imagined to occasion the phenomena. No unbiassed witness, after making every allowance for the possibility of deception, whether intentional or unintentional, of collusion or of simple hallucination of ideas, has ever supposed the real part of the phenomena in such instances as "spirit-rapping," table-turning, and the like, to be due to anything else than *some physical mode of action*, connected most probably with some peculiar affections of the nervous system, at present ill understood: but which only requires to be carefully noted, examined, recorded and analysed, (which they have not yet been to any sufficient extent,) and we may then be certain they will, in due course of experimental research, be ultimately found perfectly con-

formable to some great determinate laws, which the science of the future will elicit.

In a word, cases of the kind referred to, so far as they are regarded as physical phenomena, must be admitted as legitimate subjects for fair physical and inductive examination. In so far as they are alleged to be of a supernatural kind, not referable to some physical laws, they must be absolutely discarded from all philosophical inquiry. And the usual source of confusion is, that the parties who profess to examine them have not made up their minds in which class they are prepared to consider them.[1]

Inductive inquiry into marvellous events at the present day.

To apply generally the principles of strict inductive inquiry: if a marvellous event were supposed to occur within our own sphere of observation, we should

[1] The whole subject of mesmerism and the allied manifestations, is probably yet in a state in which it would be premature to attempt any generalisations: the one point to which attention should be fixed being merely that *all the phenomena must necessarily be subject* TO SOME *physical laws.*

An attempt, however, to maintain such a law has been made by Mr. J. Baird (British Assoc. 1855; Sect. Proc. 120), who regards the alleged fascination of birds by serpents, and other effects, such as table-turning, electro-biology, &c., to be all referable to the one principle of what he calls "mono-ideo-dynamic action," or the possession of the whole mind by one idea, which for the time neutralises all volition which might otherwise be exerted in opposition, producing involuntary and unconscious muscular action, the effects of which are attributed to external agency.

first endeavour to sift carefully the nature of the apparent fact, so as to be certain we have a correct apprehension of the real conditions; and this the more strictly and searchingly in proportion to its more unusual character: in whatever respect it might seem doubtful or difficult to interpret, we should be the more careful to wait for further instances; or endeavour, if possible, to reproduce them experimentally, — to vary the form of the phenomenon, and assure ourselves fully of all the circumstances, until we were thoroughly satisfied of the true character of the whole case, and able to refer it actually or probably to some known class of facts; or should we altogether fail in doing so, then the event must be set down as an outstanding apparent anomaly, awaiting its solution; still we should feel sure that it is a part in the great scheme of physical order, however seemingly extraordinary, and that it assuredly will, sooner or later, receive its explanation from the advance of physical discovery.[1]

[1] The following passage of Laplace has a direct bearing on the foregoing remarks: "Events may be so extraordinary that they can hardly "be established by testimony. We should not give credit to a man "who should affirm that he saw an hundred dice thrown in the air "and they all fell on the same faces. If we had ourselves been spec-"tators of such an event, we should not believe our own eyes till we

Neglect of examination into marvellous events.

Such examination, however, is too commonly neglected. Extraordinary events[1] occur which at-

"had scrupulously examined all the circumstances, and assured our-"selves that there was no trick or deception. After such an examina-"tion we should not hesitate to admit it, notwithstanding its great "improbability, and no one would have recourse to an inversion of the "laws of vision in order to account for it. This shows that the proba-"bility of the *continuance* of the laws of nature is superior, in our esti-"mation, to every other evidence, and to that of historical facts the "best established. One may judge, therefore, of the weight of testi-"mony necessary to prove a suspension of those laws, and how falla-"cious it is in such cases to apply the common rules of evidence." — LAPLACE, *Essai Philosophique sur les Probabilités*, p. 76, ed. 1814.

See also some remarks on this passage by Prof. Playfair, "Works," vol. iv. 437.

[1] While revising this passage, the following announcement catches my attention, apparently from a sober matter-of-fact observer: —

Times, Dec. 4, 1858. — "Last night, at fifteen minutes to nine, it "being very dark and raining heavily, I was ascending one of the steep "hills of this neighbourhood, when suddenly I was surrounded by a "bright and powerful light, which passed me a little quicker than the "ordinary pace of man's walking, leaving it dark as before.

"This day I have been informed that the light was seen by the "sailors in the harbour, coming in from the sea and passing up the "valley like a low cloud. JABEZ BROWN, Boscastle, Dec. 1."

Had this occurred to an ancient saint or ecclesiastic, or to a modern enthusiast or Jesuit, what might not have been made of it!

Independently of extraordinary and unexplained natural phenomena, we have constant instances of the *assertion*, on perfectly *respectable authority*, of marvels of quite another class. To take a single instance: —the loss of weight in the human body, alleged to take place when supported in a particular way by the hands of other persons, is one of these impossibilities which has yet been firmly believed. I have heard it positively affirmed by veracious, educated and well-informed persons, in

tract momentary notice, are never examined, and soon forgotten; and it is by this neglect, that ignorance and superstition are fostered. Some of these wonders, indeed, are of a purely visionary kind, the mere creations of over-heated imagination or excited nerves; still they all require and deserve to be accurately examined and recorded,—and thus alone can we hope to arrive at any sound explanation of their nature if real, or the exposure of them if imaginary or fraudulent.

Some dwell on mysteries in nature;

There are, indeed, always to be found some who are fond of dwelling on instances of the marvellous, as if opening a door to the supernatural; and others, who perhaps confusedly and inadvertently use language to the effect that we are surrounded by wonders and miracles, inscrutable to our faculties. But, as before observed, there are no real mysteries in nature: what is to-day a miracle, may become a well-known phenomenon, subject to law, to-morrow; and assuredly will eventually be so, if inductive

perfect good faith, that a solid mahogany table has been seen to rise from the ground and its surface to move in waves! With such instances before us at the present day, where shall we limit human credulity, and even honest delusion; to say nothing of cases wholly fabulous or fraudulent?

inquiry be steadily carried out. The supernatural continually recedes and disappears from our view, and the dominion of nature, order, and intelligence, daily advances.

especially life;

More especially in all that relates to the phenomena of *life*, and the influences, so little *as yet* understood, of various kinds, affecting it, there has been ample room for those who feel so disposed to indulge in the belief of the supernatural and mysterious. But, in a scientific point of view, all such imaginations must be strictly banished. The laws of life, and the principle of vital action, are, by degrees, becoming the subjects of inductive physiological examination; they are now much better understood than they were at no remote date of the past; and will be far more completely known a few centuries hence. But *life* is still *nature;* it is the very essence of *nature;* and all the miracles of nature connected with it are simply natural phenomena, just as much really subject to law, as those best known.

not real mysteries.

Extraordinary physical influences.

In some cases of apparently marvellous occurrences, after due allowance for possible misapprehension or exaggeration in the statements, it might

be conceded that the event, though of a very singular kind, was yet not such as to involve anything absolutely at variance even with the *known* laws of nature: —very remarkable coincidences of events;—very unusual appearances;—very extraordinary affections of the human body;—such, especially, as those astonishing but well-ascertained cases of catalepsy, trance, or suspended animation;—very marvellous and sudden cures of diseases; — the phenomena of double consciousness, visions, somnambulism, and spectral impressions;— might, perhaps, be included in this class, and subject to such natural interpretation be entirely admissible. Other instances might, however, be recounted of a kind more absolutely at variance with natural order, such, *e. g.* as implied a subversion of gravitation, or of the constitution of matter; descriptions inconceivable to those impressed with the truth of the great first principle of all induction, — the invariable constancy of the order of nature.

In such cases, we might imagine a misapprehension or exaggeration of some real event, or possibly some kind of ocular illusion, mental hallucination, or the like. But whatever supposition we might

adopt, the guiding conviction of the uniformity of nature must still be the paramount law of belief, however little its precise application to the particular case might at present be understood.[1]

[1] It was with a view to cases of this kind that some considerations were thrown out in the former essays (Unity of Worlds, Essay I. § III. p. 113, 2nd ed.) which it may be useful here briefly to repeat. I there maintained that in all cases of apparent interruptions or anomalies, the inductive philosopher will fall back on the primary maxim, that it is always *more probable that events of an unaccountable and marvellous character are parts of some great fixed order of causes unknown to us, than that any real interruption occurs.* And further, what may *now* appear the most mysterious, and at present least understood, we may be assured will yet hereafter be explained by the future extension of discovery.

But I have further urged, that when we carry out this principle it becomes a necessary caution that it may still be difficult or impossible to apply these considerations *in detail*, and to suggest particular interpretations in subordination to these paramount principles; yet this will not invalidate their general truth; nor need it lead us into extravagant and gratuitous speculations to bring about a precise explanation for which the circumstances do not furnish sufficient data. A truly *rational* inquirer will be content *to let such difficulties await their solution*: and, so far from being anxious always to seek such explanations in precise theories, he will own that too minute a solicitude to refer every case to KNOWN *causes*, may tend to keep out of sight the broader principle that they may be referable *to some causes as yet* UNKNOWN, but still parts of the same universal order: too minute a spirit of hypothesis may even lead to the disparagement of that principle when, in any instance, such more particular attempts at explanation are found to fail.

Thus, in reference to some cases already alluded to; in the present state of science, of all subjects, that on which we know least is, perhaps, the connection of our bodily and mental nature, the action of the one

Such would be the principles guiding our convictions as to the marvellous, in occurrences at the present day or within our experience. As, however, we look backward in the records of past times, we discover the prevalence of a more general disposition to accredit miraculous pretensions. And, as we recede into still earlier periods, we are less surprised at the recurrence of statements of the marvellous, and tales of the miraculous, which increase upon us, especially as connected with the state of popular belief in those ages. In all such cases a new element, that of *historical testimony*, is introduced into the discussion.

Belief in miracles in former times.

on the other, and all the vast range of sensations, sympathies, and influences in which those effects are displayed, and of which we have sometimes such extraordinary manifestations in peculiar states of excited cerebral or nervous action, somnambulism, spectral impressions, the phenomena of double consciousness and the like, as well as instances of suspended animation. In such cases science has not yet advanced to any generalisations; results only are presented which have not as yet been traced to laws. Yet no inductive inquirer for a moment doubts that these classes of phenomena are all really connected by *some great principles of order*.

If, then, some peculiar manifestations should appear of a more extraordinary character, still less apparently reducible to any *known* principles, it could not be doubted by any philosophic mind that they were in reality harmonious and conspiring parts of some higher series of causes as yet undiscovered.

Marvels in history.

We have adverted to the kind of examination we should make of a marvellous event occurring *before our eyes*. The same critical scrutiny could not be applied to a marvellous event recorded *in history*. But, in general, if such an event be narrated, especially as occurring in remote times, it would still become a fair object of the critical historian, to endeavour to obtain, if possible, some rational clue to the interpretation of the alleged wonderful narrative. And in this point of view, it is sometimes possible that, under the supernatural language of a rude age, we may find some real natural phenomenon truly described according to the existing state of knowledge.

But marvels and prodigies, *as such*, are beyond the province of critical history and scientific knowledge; they can only be brought within it when, either certainly or probably, brought within the domain of nature. It is almost needless to add, in reference to any such historical narrative, that it is of course presumed, as preliminary to all philosophical speculation, that we have carefully scrutinised the whole question of *testimony* and *documentary* authenticity, on purely archæological and critical grounds.

But in other cases, where such marvels may seem still more to militate against all historical probability, and where attempts at explanation seem irrational, we may be led to prefer the supposition that the *narrative itself* was of a designedly fictitious or poetical nature. And this alternative opens a wide and material field of inquiry, which can only be adequately entered upon by those who unite in an eminent degree the spirit of philosophic investigation with accurate, critical, philological, and literary attainments; and which embraces the entire question of the origin and propagation of those various forms of popular *fiction* which are, and have been in all ages, so largely the expression of religious ideas; and often convey, under a poetical or dramatised form, the exposition of an important moral or religious doctrine, and exemplify the remark, that parable and myth often include more truth than history.

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§ III. — REVELATION AND MIRACLES.

ome impressions ot addressed to ntellect.

IN the preceding portion of these remarks, we have adverted only to that class of truths, which are connected with external nature, reduced to laws,—and the evidence of sense elaborated by reason into science. But no extent of physical investigation can warrant the *denial* of a *distinct order* of impressions and convictions wholly different in kind, and affecting that portion of our compound constitution which we term the moral and spiritual.

A spiritual evelation ot inconistent with hysical hilosophy.

That impressions of a spiritual kind, distinct from any which positive reason can arrive at, may be made on the internal faculties of the soul, is an admission which can contravene no truth of our constitution, mental or bodily. Nor can it be reasonably disputed on any physical ground, that, under peculiar conditions, such spiritual impressions or intimations, in a peculiarly exalted sense, may be afforded to some

highly gifted individuals, and worthily ascribed to a Divine source, thus according with the idea we attach to the term "revelation."

On other grounds it may perhaps be argued, that such a mode of communicating high spiritual truth is suitable to the truths communicated; that spiritual things are exhibited by spiritual means; moral doctrines conveyed through the fitting channel of the moral faculties of man. But all we are at present concerned to maintain is, that both the *substance* and the *mode* of the disclosure are thus wholly remote from anything to which *physical* difficulties can attach, or which comes under the province of *sense* or *intellect.*

The spiritual world not matter of knowledge.

But then, in accordance with its *nature*, the *objects* to which such a revelation refers must be *properly* and *exclusively* those belonging to *moral and spiritual conceptions:* whether as related to what we experience within ourselves, or pointing to and supposing a more extended and undefined world of *spiritual, unseen, eternal, existence, above and beyond* all that is matter of sense or reason, of *which science gives no intimation* — apart from the world of material existence, of ordinary human action, or

even of metaphysical speculation, wholly the domain and creation of faith and inspiration. Such a world, it is acknowledged, is disclosed by Christianity as the subject of a peculiar revelation, presenting objects which are wholly and exclusively those of faith, not of sense or knowledge.

The spiritual, in no contradiction to the physical world.

Thus it follows, in regard to revelation in general, that so far as its objects are properly those which are in their nature restricted to *purely religious* and *spiritual* truths, we must acknowledge that in these, its more characteristic and essential elements, *it can involve nothing which can come into contact or collision with the truth of physical science, or inductive uniformity; though* wholly *extraneous* to the world of positive knowledge, *it can imply nothing at variance with any part of it,* and thus can involve us in *no difficulties on physical grounds.*

And those who reason most extensively on the Divine perfections are usually foremost to allow that our most worthy conception of Divine interposition is that of spiritual manifestation in the disclosure of the Divine will and purposes for the salvation of man.

It is the very aim and object of philosophy to

point to broad principles of unity, continuity, and analogy, in all physical events; though there are many who (as one of the most able writers of the age has expressed it), being "unable to compare, suppose "that everything is isolated, simply because to them "the continuity is invisible." [1]

But in matters altogether alien from physical things, or even the moral order of this world, — in spiritual, unseen, and heavenly things, from their very nature, no such analogies can be found or expected; they are essentially distinct in *kind* and order.

Revelation distinct from miracles.

Thus, a purely *spiritual* revelation, as such, stands on quite distinct grounds from the idea of *physical* interruption. Yet this distinction has been continually lost sight of, while it is of the most primary importance for vindicating the acceptance of such revelation as the source of spiritual truth.

Such a confusion of ideas so essentially distinct constitutes a main defect in the argument of Hume: who, at the conclusion of his Essay on Miracles, seeks to extend the inference by contending that what has

[1] Buckle, Hist. of Civil. vol. i. p. 478, note.

Hume's confusion between physical and moral evidence.

been urged with respect to miracles, will equally apply to prophecy, and, in fact, to revelation altogether, which is properly as miraculous; "So "that," he finally observes, "upon the whole, we "may conclude that the Christian religion not only "was at first attended with miracles, but even at this "day cannot be believed by any reasonable person "without one. Mere reason is insufficient to con- "vince us of its veracity: and whoever is moved by "faith to assent to it, is conscious of a continued "miracle in his own person, which subverts all the "principles of his understanding, and gives him a "determination to believe what is most contrary to "custom and experience." [1]

This passage exhibits a remarkable and characteristic instance of the way in which a thinker, so acute on many subjects, confounds together things essentially distinct, in his anxiety to push his argument beyond its legitimate application. It affords a striking confirmation of what was observed before, of how little he appreciated any enlarged view of natural order, or discriminated between *physical* and *moral* evidence. An argument on natural grounds,

[1] Essays, vol. ii. p. 138, ed. 1800.

which might correctly apply to *physical* miracles, might not apply at all to moral, or still less to spiritual influences; for the obvious reason that man's spiritual *nature* (in so far as it exists apart from his physical nature) is in no way amenable to any natural analogies, or subject to natural laws; and a spiritual revelation, as such, is never even imagined to be a violation or interruption of any laws of sense or even of mind; but is always conceived as something essentially distinct and apart from them. It is this which constitutes the very ground of its admissibility; it is in its nature something wholly beyond the province of philosophy, whether physical or metaphysical; and thus can offer nothing in antagonism to it.

Faith distinct from science.

The "lame and impotent conclusion" of the passage above quoted cannot but strike every one— "What is contrary to *custom* and *experience!*" — to designate the vast idea of cosmical order, or to confound a violation of it with that spiritual influence which cannot "subvert the principles of the "understanding," since from its nature it does not at all appeal to the understanding, or to the laws of reason, with which it professedly and essentially disclaims all connection.

Necessity for miracles maintained by some.

Abstractedly, then, it must be admitted that the idea of revelation, as above viewed, is entirely distinct from all admixture with external influences, and independent of the notion of any special *sensible* intervention. Yet it has often been maintained, and has been, perhaps, the most commonly received view, that such external interposition is necessary for attesting the disclosure of Divine communications. Such was the argument of Paley and others of an older school; but at the present day, we cannot but perceive that it is greatly losing ground, even in the estimation of orthodox theologians.

Physical and moral miracles.

But those who have felt the greatest difficulty in admitting *physical* miracles, have no hesitation in accepting the assertion of any amount of purely *moral and spiritual* influence, even to the extent of those exalted conditions of soul in which the favoured and gifted disciple was enlightened by immediate disclosures of Divine truth, or endowed with internal energies, and spiritual powers, beyond the attainment or conception of the ordinary human faculties: And Theistic reasoners have held it more consonant with the Divine perfections to influence mind than to disarrange matter.

It was the argument of Origen, and has since been

often repeated under various forms, that to suppose the success of Christianity in the world effected by such simple means and humble instruments as its history describes, *without the aid of miracles*, would be to admit a *greater miracle* than any of those called in question. Propagation of the Gospel.

But it seems to be overlooked, that the alternative is merely one between *physical* miracles, and the *moral* miracle of the conversion of the world without them. And it would clearly be open to us to accept the latter: to admit an interposition of *moral and spiritual* influence to any extent, rather than one of *physical* interruption.

The question of miracles as connected with the Christian revelation has been usually discussed with very little reference to the foregoing considerations, or indeed to any philosophical views. But as such discussion in its received form has been largely mixed up with prevalent opinions, it may be desirable to make a few remarks on its grounds and nature. Evidential discussion.

Perhaps the greater number of those writers who have treated the question, especially in former times, have made it rest almost entirely on the ground of *testimony*. Nor is this consideration one which can be overlooked, however at the present day it may

be seen to be subordinate to other and more general reasonings. So far as the simple question of human testimony is concerned — the value attaching to it, and the probabilities of its failure,—it is reducible to a matter of calculation; and apart from all antecedent considerations, has been followed out by mathematical analysis. Thus it has been considered generally by Laplace, and more special and elaborate investigations, applying to such cases as those in question, have been given by Mr. Babbage[1] and Mr. Young.[2]

Value of testimony

Any such abstract conclusions, however, will receive material modification when we come to enquire into the actual circumstances of the documentary evidence, and the transmission of the testimony or the apparent origin of the records of it.

Documentary authority.

It must indeed be recollected that the whole argument presupposes that the *documentary* evidence has been satisfactorily investigated. In whatever light we have been led to regard the Gospels, as to their origin, authorship, materials, or mode of com-

[1] Ninth Bridgewater Treatise, Appendix, note E.

[2] A paper, "On Hume's Argument," printed separately, 1844, by T. R. Young, late Professor of Mathematics at Belfast; the details of the calculation being contained in his "Essay on Probabilities."

position, it is still, as it were, only by a reflection of that light that the miraculous relations can be viewed. The character of the latter is inseparable from that of the former. At the present day it is not *a miracle* but the *narrative of a miracle*, to which any argument can refer, or to which faith is accorded.[1]

Indiscriminate belief.

In reference to the belief in miraculous narratives generally, some instructive suggestions may be derived from the case of the celebrated Rammohun Roy, who, in his endeavours to convert his countrymen even to the Unitarian form of Christianity, found the great difficulty in regard to the miracles, not from their *scepticism* but from their *credulity*. They did not at all question the miracles of the Bible, but appealed to wonders wrought by their own saints and deities ten thousand times more marvellous, and this on testimony apparently as strong.[2]

[1] Vanini indeed went further, and objected that the Christian doctrines were in this point of view "Confirmatas non miraculis, sed "scripturâ,—cujus nec originale ullibi invenitur,—quæ miracula facta "recitet."—*Amphitheatrum*, &c., p. 366, 1615.

[2] His own remarks are as follows: "If all assertions were to be in-"discriminately admitted as facts merely because they are testified by "numbers, how can we dispute the truth of those miracles which are "said to have been performed by persons esteemed holy among the

Fact, matter of testimony,—miracle, of opinion.

But material as, in reference to the subject of the last remark, is the discussion of *testimony*, it must still be observed that in the general and abstract point of view this is really but *adventitious* to the question of *miracles:* and that supposing all doubt as to *testimony* were entirely removed, as in the case of an actual witness having the evidence of *his own senses* to an *extraordinary* and perhaps *inexplicable*

" natives of this country? (India.) The very same argument pursued " by the editor (of the 'Friend of India') would equally avail the " Hindoos. Have they not accounts and records handed down to them " relating to the wonderful miracles stated to have been performed by " their saints, such as Ugustyu, Virghistu, and Gotum; and their gods " incarnate, such as Ram, Krishnu, and Nursingh; in presence of their " cotemporary friends and enemies, the wise and the ignorant, the " select and the multitude? Could not the Hindoos quote, in support " of their narrated miracles, authorities from the histories of their " most inveterate enemies, the Jeins, who join the Hindoos entirely in " acknowledging the truth and credibility of their miraculous ac- " counts?

" Moosulmans, on the other hand, can produce records written and " testified by the cotemporaries of Mohammed, both friends and " enemies, who are represented as eye-witnesses of the miracles as- " cribed to him; such as his dividing the moon into two parts, and " walking in sunshine without casting a shadow. They assert, also, " that several of those witnesses suffered the greatest calamities, and " some even death, in defence of that religion."— *Rammohun Roy*, 2nd Appeal, p. 225, quoted in Combe's "Relation between Science and " Religion," 4th ed. p. 147, in which able work the whole case of this remarkable man's convictions is fully discussed, especially in connection with his phrenological development.

fact, still the material enquiry would remain,—*is it a miracle?* It is here, in fact, that the essence of the question of credibility is centred — not in regard to the mere external, apparent, *event*, but to the *cause* of it—not to the mere impression on the senses of the witness, but to the nature of the source whence it is derived.

This is the distinction so ably and largely insisted on by Dean Lyall.[1] After some criticism of Hume's Essay, he proceeds thus: —

"Nevertheless, the proposition itself, which he "endeavours to establish, but most certainly does "not, is, I imagine, an indubitable truth. Assuredly, "the credibility of a miracle cannot be established "on human testimony. Not, however, for the rea- "sons assigned by Hume, because human testimony "is fallible, but because *human testimony is not the* "*proper proof.* This will be immediately apparent, "if we consider for a moment what is the precise "signification of the word 'miracle.'"

He then goes on to explain his meaning by drawing the distinction between an *extraordinary fact*,—

[1] Propædia Prophetica, Diss. II. p. 391. 1840.

which is a proper matter for human *testimony*,—and the *belief* in its being *caused by Divine interposition*, which is a matter of *opinion*, and consequently not susceptible of support by *testimony*, but dependent on quite other considerations.

Antecedent credibility.

This passage may, perhaps, appear startling to some readers, but the remark is surely substantially just and important, and the distinction laid down by such undeniable theological authority in fact involves the essence of the question, and makes it turn on the consideration of the general grounds of antecedent credibility, on which the *opinion* or *belief* in the miraculous nature of an event really rests.

Hume's argument.

It is the antecedent view of credibility which is the substantial principle really involved in the celebrated argument of Hume; though so ill expressed, and so imperfectly brought out, as to lay his reasoning open to obvious criticism,—of which his opponents have not been slow to avail themselves. The mistake originates in the author's attempt, at the very commencement of his Essay, to identify the principle of his argument with that of Archbishop Tillotson against transubstantiation.

Now Tillotson's argument amounts to this: that

the external evidence of Christianity altogether is weaker than the evidence of our *senses;*—since it depends only on *testimony* to what was the evidence of the *senses* to the Apostles. It cannot, therefore, prove anything against the evidence of our senses. But transubstantiation contradicts the evidence of our senses[1]; therefore, were it ever so distinctly stated in revelation, it is not to be received.

To apply the parallel, however, it becomes necessary to show that a miracle contradicts *the testimony of the senses.* And it is in making out this point that Hume endeavours to establish as precisely equivalent *the testimony of "experience"* which is founded primarily on the evidence of the *senses.*

Experience and analogy.

But in adopting the term "experience," and making his argument mainly turn upon it, he exposed that argument to the criticisms of a host of opponents,—of whom none availed themselves more skilfully of that oversight than Paley,—retorting

[1] It is singular that so eminent a divine as Archbishop Tillotson should have overlooked the fact that transubstantiation *does not* contradict the evidence of the *senses;* since its assertors freely admit that the wafer and the wine still remain such *to the senses,* even to chemical analysis. These are only the outward *accidents.* It is the *substance* which is changed, which is not an object of the *senses:* it is a mystery of *faith.* See the "Trent Catechism," pt. ii. ch. iv. quest. 25—43.

upon him the complete *petitio principii* involved in his expressions; if nothing is to be believed contrary to "experience," every new fact must be denied. But the question really turns upon far wider and higher considerations. If for the word "experience" Hume had substituted "analogy," or something to the same effect,—the question would have presented itself under a very different aspect, and it would have been evident that we must recur to evidence of a far higher kind in order to its determination.

Physical order.

The real question does not relate to the evidence of the *senses* but of *reason:* not to *experience* in the limited sense of the word, but to the general ground of our convictions, the whole basis of the inductive philosophy;—and turns essentially on the views we have arrived at, of the order of the natural world, and the chain of physical causation.

Physical and moral evidence.

And here we must particularly attend to the distinction between the evidence for those grand conclusions in *nature,* and that which we have in regard to events connected with *human affairs,* a distinction of which Hume loses sight; and continually refers to the questions of credibility and testimony affecting the one class of facts and the other, as if they

rested on the same kind of conviction alike, and without a due appreciation of the great principle of the permanence of physical laws.

Grounds of belief in different ages.

We have observed that a *miracle* is a matter of *opinion*[1]: and according to the ordinary view, the precise point of *opinion* involved in the assertion of a miracle—is that the event in question is a *violation* or *suspension* of the laws of nature: a point on which *opinions* will chiefly vary according to the degree of acquaintance with physical philosophy and the acceptance of its wider principles;—especially as these principles are now understood, and seen to imply the grand conception of the universal COSMOS, and the sublime conclusions resulting from it, or embodied in it.

Physical views of the present age.

If, in a less critical view, former ages entertained more unrestricted notions of supernatural influence, and justified them by metaphysical theories of the Divine perfections, especially of omnipotence, to the extent of supposing interruptions in the order of nature; the more strict and scientific physico-theology of the present day fails to carry us beyond the indications of *mind* in order, law, arrangement, and

[1] Above, p. 288.

of power in the sense of upholding that universal and invariable system of order.

Metaphysical theism does not support miracles.

If in former ages the spirit of metaphysical speculation led theologians to abstract theories of the Divine perfections, whence they reasoned downwards to an omnipotence over nature, and a providence of special interruptions, such reasonings have obtained less acceptance at the present day. It was formerly a popular argument that He who created nature can, *when necessary*, suspend it, or, to meet *emergencies*, adopt extraordinary measures; as if "emergencies" could occur to omniscience, or "necessity" to omnipotence! Indeed, in modern times, those who have most largely dwelt on the *à priori* Theistic argument (valeat quantum) have been led from it to the rejection of all interposition as inconsistent with infinite perfection.[1]

Progress of opinion on these points.

The progress of opinion on such questions, has been in some measure indicated in the historical survey before taken.[2] The *metaphysical* spirit of an older philosophy indisposed or disqualified even the most

[1] For instance, such are the arguments of Wegscheider ("Instit. Theol." § 12.), and of Theodore Parker ("Theism," &c., p. 263). See also Mansel's "Bampt. Lect." p. 185, 1858.

[2] See Essay I. p. 124.

philosophical inquirers from perceiving the relative importance and bearing of physical truth. Their Theistic arguments were based on technical abstractions, and overruled all physical inferences. Hence both the belief and the scepticism of different ages has taken its character. Men formerly, and even at present under metaphysical influences, have cavilled at *mysteries*, but acquiesced in *miracles*. Under a more *positive* system, the most enlightened are the first to admit spiritual *mysteries* as matters of faith, utterly beyond reason, though they find deviations from *physical* truth irreconcilable to science. Formerly, the most philosophical theologians found subjects of keen dispute or doubt in the mode of the Divine hypostasis, — in the homoöusion, — in the mazes of predestination, foreknowledge, freewill and evil; which no human intellect can grasp: while yet no question occurred to them in the really tangible subjects of the material world, in accepting a creation of all things out of nothing in six days, — an universal deluge, subversions of physical laws, and interruptions of the order of nature.

Grounds of belief in different ages.

The great difference in the mode of viewing these and the like questions, between different ages, is

mainly dependent on the advance of physical knowledge, and the increasing perception of the great *cosmical principle.* As we have before seen, even in comparatively modern times, this principle can hardly be said to have been fully developed, or its force adequately appreciated, even by some philosophers. And as we recede to the testimonies of still more ancient periods, and view the records of miracles in connexion with the existing state of knowledge and intelligence, we must recognise the more universal influence of predisposing causes on the adoption of the belief in the supernatural. Some distinction too of this kind may not be unconnected with the characters of race and country: the Oriental mind, in this respect, has perhaps some tendencies different from the European.

ncient
cpticism.

But, in regard both to nationality and to time, the entire diversity in the mode and nature of conceptions on such points, between ourselves and the contemporaries of the origin of Christianity, must ever be borne in mind in these questions. It may perhaps be allowable to illustrate the case, by imagining a sort of reversal of the conditions; by conceiving for a moment that any of the wonders of the present

age, the miracles of modern science,—the revelations of the telescope or microscope, a steam-carriage, or electric-telegraph,—could have been made known to an intelligent Jew in the Apostolic Age. He would, make no doubt as to the *fact*, if properly authenticated; but would, as a matter of course, set it down as a *supernatural* interposition, whether divine or demoniacal. This, in fact, would, to his mind, constitute the main ground of its credibility: To spiritual power, he would say, nothing is impossible. But suppose him told that all these marvellous effects are nothing but the mere operations of natural causes, applied by human skill, this would be too much for his faith: No, he would say, natural causes and human skill could never produce anything like this; it is the finger of God, or the power of a spirit! To the ancient Oriental and the modern European mind the order and force of the reasoning are exactly inverted. What to one would be the sole ground of belief, would to the other constitute the very occasion of doubt.

In fact, in this as in all other cases, we must recollect how entirely the grounds of conviction are altered with the state of knowledge.

Modern scepticism.

Of old, the sceptic professed he would be convinced by *seeing* a miracle. At the present day, a visible miracle would but be the very subject of his scepticism. It is not the *attestation*, but the *nature* of the alleged marvel, which is now the point in question. It is not the *fallibility* of human testimony, but the *infallibility* of natural order, which is now the ground of argument: and modern science cannot conceive religious truth confirmed by a violation of physical truth.

Miracles regarded as parts of some more comprehensive system.

On such considerations as the foregoing, many of the most serious inquirers into this subject (even of very different schools) have agreed in the necessity for having recourse to some wider principles in their view of miracles than the old assumption of suspensions of the laws of matter, the admission of which they acknowledge inconsistent with the present state of physical knowledge. Thus to many who are anxious to uphold miracles, it has appeared a more satisfactory view of the case to recur to a broader basis, and one more conformable to wider views of natural laws.

Thus it has seemed more philosophical, and more in conformity with the grounds of natural theology,

to appeal to some wider principle of law and order; to suppose miracles rather parts of some more comprehensive system,—and that there is no real breach of extended analogy,—of a kind connected by larger principles of uniformity, however unknown to us.

Some such view has in fact been adopted by the best and most approved advocates of Christianity, even of very opposite schools. Derived, perhaps, from the philosophy of Leibnitz,—suggested by Bishop Butler[1], recognised by Bishop Watson[2],—it has been in different degrees upheld by Dean Lyall[3] and Dr. Arnold[4], advocated by the learned dissenting divine Dr. Pye Smith[5], and illustrated from the mathematical analogies of intermittent laws by Mr. Babbage.[6]

Views of eminent writers. Bishop Butler.

Bishop Butler indeed seems to have conceived that the providential government of God consisted of two schemes, as it were, running parallel with each other, the one ordinary, the other extraordinary, both regulated by general and universal laws; but each by

[1] Analogy, pt. ii. ch. iv. § 3.
[2] Third Letter to Gibbon.
[3] Prop. Proph. p. 392.
[4] Mod. Hist. p. 137.
[5] Scrip. Geol. 88, 101.
[6] Ninth Bridgew. Treat. 99.

its own laws. This at least is what may be collected from the most material passage, where his argument is to this effect. After enlarging on the real subordination of all nature and all ordinary events to some general laws, to however large an extent, as yet unknown to us, he concludes, — it is a fair argument "that God's miraculous interpositions may "have been all along in like manner by general "laws of wisdom." "Thus that miraculous powers should be exerted" at particular times, and under particular circumstances only, as in various cases which he enumerates, ... "all this may have "been by general laws. These laws are unknown "to us; but no more unknown than the laws" of many natural events; of which it is yet "taken "for granted that they are as much reducible to "general laws as gravitation."[1]

In this argument, however, it must be observed that the general admission of miraculous interposition is *assumed*, and the antecedent credibility of such physical intervention does not enter into the question. In other places, indeed, it is evident that

[1] Analogy, pt. ii. ch. iv. § 3, p. 262, ed. 1807.

the author makes "revelation" and "miracles" synonymous[1]; — or at least conceives no distinction between a *spiritual* or *moral* interposition (which involves no possible question) and a *physical*, where alone the modern difficulty applies.

But the argument mainly depends on a distinction in the parallel thus drawn between the moral and the natural order of things; that, in the former, miracles and ordinary providence differ, in the same way as in the latter certain peculiar cases differ from the ordinary operations of nature.

Thus he observes: — "Miracles must not be compared to *common* natural events, or to events which, "though uncommon, are similar to what we daily "experience; but to *the extraordinary phenomena* "*of nature.* And then the comparison will be between the presumption against miracles and the "presumption against such uncommon appearances, "— *suppose as comets,* and against there being any "such powers in nature as *magnetism* and *electricity,* "so contrary to the properties of other bodies not "endued with these powers. And before any one

[1] See especially "Analogy," p. 227, ed. 1807.

"can determine whether there be any peculiar pre-
"sumption against miracles more than against other
"extraordinary things, he must consider what, on
"first hearing, would be the presumption against
"the last-mentioned appearances and powers to a
"person acquainted only with the daily, monthly,
"and annual courses of nature respecting this earth,
"and with those common powers of matter which
"we every day see."[1]

Thus then, according to this distinguished and philosophical prelate, we may perceive that miracles or special interventions are to be supposed to stand in the same relation to ordinary providence, as that in which comets, magnetism, electricity, or other more striking and singular instances of natural phenomena stand with respect to the more common and universally observed facts of the regular planetary motions—of gravitation—of the pressure of the air and the like;—*a relation which, in the present state of our knowledge, is absolutely one and the same.*

More particular application.

Some divines have gone into more detailed suppositions and applications of the same principle.

[1] Analogy, pt. ii. ch. ii. § 3, p. 233, ed. 1807.

Thus, Athanase Coquerel[1] connects very similar views with an extensive doctrinal speculation on the divine powers and operations concerned (as he conceives) in the work of redemption, on which he supports the idea that miracles are preordained parts of that series of designed operations and not suspensions of nature. Such speculations, it is to be observed, rest entirely on the Theistic argument, which, as to Omnipotence, it has been before observed, depends wholly upon revelation, and thus cannot legitimately be made the basis of *argument* antecedent to that revelation, or of *evidence in proof* of it. Athanase Coquerel.

Archbishop Whately remarks: "*Superhuman*-"would perhaps be a better word than *supernatu*-"*ral:* for, if we believe that 'nature' is merely "another word used to signify that state of things "and course of events which God has appointed, "nothing that occurs can be strictly called 'super-"natural.' Jesus himself accordingly describes his "works, not as violations of the laws of nature, but "as 'works which none other man did.'"[2] Archbishop Whately.

[1] Christianity (translation), p. 228.

[2] Easy Lessons on Evidences, ch. v. § 2.

Dean Trench.

The broad principles of general laws, at least to a certain extent, appear to be admitted by the Dean of Westminster, Dr. Trench.[1] In his preliminary Essay he offers several illustrations of *apparent* exceptions to general rules which yet really fulfil them. But, upon the whole, the nature of his distinction as to miracles is expressed in terms such as to leave us in some uncertainty as to the precise meaning. He observes:—"They (miracles) exceed "the laws of *our* nature, but not of *all* nature. ". . . . A comet is a miracle as regards our solar "system; that is, it does not own the laws of our "system, neither do those laws explain it. Yet "is there a higher and wider law of the heavens, "whether fully discovered or not, in which its "motions are included as surely as those of the "planets which stand in immediate relation to "our sun."[2]

The sense in which we are to take the learned author's distinction between *our* nature and *all* nature, is far from clear; while it is difficult to interpret his idea of the laws of the solar system, unless

[1] Notes on Miracles, 1846.

[2] Note, p. 16.

it be understood to imply a view of the real subordination of miracles to *some* general natural laws, far more complete and philosophical than perhaps the tenor of other parts of his remarks might seem to countenance.

If, indeed, miracles differ from ordinary events only as comets differ from planets, or unexplained phenomena from those whose laws are known, they do not differ at all in the only sense in which any philosophical difficulty arises. But this would hardly accord with the meaning in which they have been usually appealed to by theologians.

Dr. T. Brown.

Dr. T. Brown, on his peculiar view of *causation*, argues that "a miracle does not violate the laws of causation," on the ground that the non-production of similar effects from similar causes would indeed be a violation,—but here, he says, the causes are not similar, since "to the usual operation of natural "agents there is superadded a special intervention of "the author of nature."

But this is simply to beg the whole question; unless, indeed, we understand it in the sense which elsewhere the same author seems to intimate when he considers the divine intervention as in fact a

part of "the powers of nature," and thus miracles as natural phenomena.[1]

Dr. Carpenter.

One of our most enlightened physiologists remarks of miracles, that, "If they are exceptions to general "laws, they are so only in human estimation, since "they are as much a part of the Divine will, and "were as much foreseen by Divine Omniscience as "any of those occurrences which are usually re- "garded as constituting the order of nature."[2]

Mr. Kingsley.

Another able and popular writer has indulged in carrying out the same idea to the extent that, as health and life are the normal condition of physical order, and disease and death interruptions of it, so the miracles of healing and resuscitation were but the assertion of the higher and divine principle of order, to restore the true condition and law of nature, instead of being at variance with it; while "contra-natural prodigies, signs from heaven," were refused; and that those which were granted took place "according to some great primal law unknown to us whereby the spirit of life operates."[3]

[1] On Cause and Effect, note E.

[2] Dr. Carpenter, "General Physiology," p. 135, note.

[3] Rev. C. Kingsley, "Alton Locke," ii. 263.

These various specimens of the expressions of a general view, more or less clearly put forth, exhibit, doubtless, conceptions gaining authority at the present day of a more worthy character than the unphilosophical notion of suspensions of the laws of nature. But in some of the illustrations proposed it may be doubted whether there is evinced that distinct grasp of the real idea of physical law as the paramount principle on which alone all further inferences can be philosophically built.

General remark on this view.

These and all arguments of the same class, it must also be remembered, rest entirely on the assumption of Theistic hypotheses, often of a very doubtful nature, or which cannot be adopted antecedently to revelation, since they are unsupported by positive scientific evidence.

Argument involves doubtful assumptions.

Yet there are doubtless many minds to whose conceptions such a view disencumbers the subject of serious difficulties; and in the coincidence of certain intermittent effects foreseen by an overruling Providence, or in the belief that God might make use of extraordinary natural events as instruments to His designs, they are satisfied to acknowledge divine

manifestations accrediting a disclosure of divine truth.

To others, however, such a view may appear to fall short of the requirements of the case, especially when they attempt to realise it in detail as applied to the actual recorded cases of the New Testament narrative. Yet it may not be superfluous or unprofitable to advert to any form of explanation which may seem to claim attention on a subject on which so much serious difficulty and perplexity has been felt. To some more detailed views which have been put forth with this object, attention will be directed in the next Essay.

ESSAY III.

ON

THE RATIONALISTIC AND OTHER THEORIES

OF

MIRACLES.

RATIONALISTIC THEORIES OF MIRACLES, &c.

§ I.—INTRODUCTION — GENERAL NATURE AND OBJECT OF CRITICAL AND RATIONALISTIC THEORIES OF MIRACLES.

§ II.—THE NATURALISTIC THEORY OF PAULUS AND OTHERS.

§ III.—THE MYTHIC THEORY OF STRAUSS.

§ IV.—THE SUBJECTIVE THEORY OF FEUERBACH.

§ V.—THE PSYCHOLOGICAL THEORY OF EWALD.

§ VI.—THE DOCTRINAL THEORY OF NEANDER.

CONCLUSION—GENERAL REMARKS ON THEORIES OF MIRACLES.

ESSAY III.

ON THE RATIONALISTIC AND OTHER THEORIES OF MIRACLES.

§ I. — INTRODUCTION — THE GENERAL NATURE AND GROUNDS OF RATIONALISTIC THEORIES OF MIRACLES.

Origin and aim of rationalism

WHEN the serious difficulties attending the question of miracles have been duly considered, as well as the doubts which have in consequence arisen in the minds of so many, it is not surprising that a disposition has manifested itself, on the part of a considerable school of professed advocates of Christianity (especially in the speculative spirit of the German theology), to avoid the *rejection* of the miracles by attempts to *explain* them, or the *origin* of the *narratives* of them, according to some recognised and general principles, and in what is considered a "rational" point of view: in a word, on the same principles as would be applied in a rational criticism

of supernatural incidents in ordinary history. Yet all such attempts have been regarded by many divines with suspicion and hostility in respect to their entire nature, character, and pretensions, without entering on the question of the intrinsic reasonableness or sufficiency of the particular explanations suggested.

to be fairly estimated.

In a complete and dispassionate survey of the subject of miracles, this portion of it cannot be overlooked: nor ought the candid inquirer to shrink from an examination of what is at least proposed by able and learned writers, as a means of solving those difficulties which many serious thinkers have found so formidable.

When the inviolable sanctity of the claims so long maintained to their unlimited extent by the ancient church had been once invaded by the unsparing hand of Protestant criticism, and the plea of reason and free inquiry once recognised, —it must be allowed that if one school of Protestantism should have adopted a bolder line of inquiry, or followed it out to a more ambitious extent, it is clearly not so much in *principle* as in the *degree*, the *mode*, the *tone*, of their speculations that they have subjected themselves to the censures

of the more literal interpreters. And it cannot be denied that there has sometimes been much justly offensive to the believer in the character and style of these criticisms. Yet, while everything in the mode of expression calculated to give offence should be strongly repudiated, the candid inquirer will not disregard the real claims of fair discussion on matters so essential to the full appreciation of Christian truth.

Objections felt to rationalist speculation

Many very good men, alarmed for the security of established opinions, are led to look with indefinite suspicion on all critical inquiry, and to denounce all free investigation as unwarrantable and dangerous. But though some speculations of the kind have been pushed to a faulty and offensive extreme, and evince a perversion and misuse of rational argument, it is surely rather on this very ground that they ought to be met. They *claim*, at least, to be founded on principles identified with those of reason and sound criticism. It is then on similar principles and with similar arguments that the polemic must be prepared to encounter them. It is utterly idle at the present time for the advocate of Christianity to indulge in mere empty declamation against Ra-

tionalism; or to content himself with censuring and anathematising such speculations as presumptuous and sinful. It is not by any such sweeping condemnation that they can be really or effectually opposed. They profess to be built on considerations of an exact and philosophical kind, by such philosophical, learned and candid discussion therefore they ought to be combated.

Historical criticism.

The whole subject of the rational criticism of historical narratives, and more especially what is called the "higher criticism," is a branch of study even now but little attended to among us, and till of late almost unknown to our literature. Thus the reading public some years ago was altogether startled at the liberties taken by Arnold and Niebuhr with the time-sanctioned legends of the Roman history; and even when such criticism is tolerated with reference to other branches of ancient and even ecclesiastical history, there is still a vehement prejudice entertained against any application of it to the Scripture narrative; and an impression felt that it is a sort of profanation to subject to the same tests those records in which above all others it would seem most important that the actual truth should be vindi-

cated and distinguished: more especially as it is on their *strictly historical* character that so much stress is laid by divines of the older school.

But here again we cannot but trace an under current of popular feeling, which invests those narratives with a character somewhat different from what the strict evidential school would demand: and which views the sacred records much more through the medium of a *religious feeling*, and a sense of the *doctrinal* turn which is to be given to them, than as mere matters of chronological and annalistic detail. And regarding the Gospel miraculous narratives in this sacred light, popular prepossession is startled and offended at critical discussion; and thus virtually disparages their *historical* character.

Argument from extraordinary events at the present day.

It is sometimes argued against the application of such criticism, that in our own days very extraordinary events have happened, which, if narrated in brief fragmentary records to a distant age, would appear so improbable that they ought on the same critical principles to be rejected as incredible, or explained away as fabulous, though possibly enveloping some small germ of real history. Yet, being in possession of the actual facts, *we* see

that when all the real conditions are known,—the defective links supplied,—and the true causes of the events understood,—the whole is perfectly credible and conformable to experience.

Thus what such a representation really proves is, that there *is* a rational *solution* of the apparent marvels: and it is on the general persuasion that in any case some such rational explanation *really exists*, though *unknown to us*,—that any historical statement of an apparently marvellous kind is rendered credible.

Partial instances of such interpretation allowed by orthodox divines.

In the nature of such attempts to explain miracles there is nothing absolutely new or peculiar. It has been a practice with divines of many times and countries, *occasionally* to view the Scripture narratives of miracles, either as explicable by natural causes, or as figurative or allegorical representations of doctrines. These modes of interpretation were not unfrequently resorted to by the Fathers of the early Church, and few would refuse to admit that such explanations may be in certain cases plausible, and may even tend fairly to smooth down difficulties apparent on the face of the literal narratives.

Many find it satisfactory to admit, as a general

principle, the probability that extraordinary natural events may have been used as the means or instruments of introducing religious truths, or have been narrated and believed in remote ages as special interpositions in favour of nations or individuals, or that a supernatural colouring might have been sometimes given to narratives even of ordinary transactions in times when, in popular estimation, most events were deemed in some sense supernatural.

Examples in the Old Testament.

For example: many who strongly uphold the authority of the Old Testament, yet think it reasonable to regard the description of the shower of stones in the book of Joshua (ch. x.) as really a fall of meteorites, such as modern observation has so fully substantiated: while others look upon the passage, especially including the other phenomena mentioned, as a figurative or poetical description quoted (as indeed seems to be implied) from the lost book of Jasher. But the only ground on which either explanation becomes of any importance is in connection with the primary conviction, and the degree to which it is admitted, that the order of nature would not be violated.

Again: no educated person at the present day for

a moment imagines the "standing still" of the sun and moon, or the going back of the dial of Ahaz, to have been a real stoppage or retrogradation of the earth's rotation; however little they may be able to imagine what the case described really was.

As little doubt would be entertained (assuming the *historical* character of the Mosaic writings) that *some* secondary agents were employed in the extraordinary events connected with the exode of the Israelites and the delivery of the law, though we know not of *what nature*. The precise explanations suggested may be frivolous and unsatisfactory; yet we may be convinced there *is some* explanation. Some have assigned a precise theory of the destruction of Sodom and Gomorrah, including the fate of Lot's wife[1] by the agency of a volcanic eruption:—others again have alleged that the "manna" in the wilderness was an unusual supply of the gum from a species of Tamarisk, known to be often found scattered on the ground in those regions.

Particular solutions may be unsatisfactory.

These and numerous other like suggestions *may* be utterly futile; yet it may be true that if the

[1] See Henderson's "Travels in Iceland," i. 153.

incidents are regarded as real some natural agents may have been the causes of them.[1]

General principles admitted.

In general, the peculiar difficulties attaching to miraculous narratives, as well as the importance of looking to such considerations as might tend to obviate them, will doubtless appear of very different magnitude to different minds. Among the most orthodox and approved divines, attempts to explain certain portions of the Gospel narratives so as to obviate objections felt on physical grounds have not been discountenanced. In such cases it has been

[1] We may illustrate the subject by another recent instance of this kind of explanation, suggested, on purely chronological and astronomical grounds, by Dr. Ideler ("Handbuch der Mathemat." &c., vol. i. p. 407); that the star of the Magi may have been a remarkable conjunction of the planets Jupiter and Saturn, so near, he conceives, that "they might have seemed confounded into one," or have been so described; which he calculated took place A.D. 7; and this explanation has been adopted in the Greek Testament of Dr. Alford, Dean of Canterbury.

It has, however, since been clearly shown by the more exact calculations of the Rev. C. Pritchard (Memoirs of the Royal Astron. Society, vol. xxv. p. 119, 1856), that the nearest approach of the two planets was, in fact, a distance of *more than two diameters of the moon*, so as to exclude the possibility of their being confounded into one.

Since the publication of Mr. Pritchard's paper it has appeared that Professor Encke had already made a similar calculation with exactly the same result, notwithstanding which some of the rationalistic commentators persist in affirming this conjunction to be the star of the Magi.

allowed a reasonable caution to abstain from too hasty an assumption of Divine interposition, and natural causes have been allowed sometimes to afford at least plausible solutions.

Inferences beyond the literal narrative.

Again: most critical inquirers admit it right, as a general rule, not to insist on *more* than *the words* of the writers *necessarily* imply. The popular notion of a particular recorded occurrence may very often be found to run beyond what the strict language of the narrative really conveys: and the difficulty felt in the supposed supernatural character of an incident may turn wholly on an *interpretation* given perhaps to a single expression, or on something *inferred* rather than positively stated. In such cases the most orthodox will allow that the critic has a full right to whatever real or supposed advantage he can fairly gain, without trenching on the integrity of the text.

Such are a few general and preliminary considerations which may tend to facilitate the more particular examination of several theories proposed, to which we now proceed.

§ II. — THE NATURALISTIC THEORY OF PAULUS AND OTHERS.

Grounds of the "natural explanation."

THE principle of going into minute criticisms of the narratives of the Evangelists, so as, in many cases, to avoid the apparent supernatural sense, and by referring to natural causes to explain events apparently described as miraculous, has been designated as the "natural," in contradistinction to certain other hypotheses referring to the composition of the narrative.

Such modes of interpretation had indeed been carried on, with reference to detached portions of the sacred narrative, by some of the German theologians of earlier date. But Semler (about the middle of the last century), who may perhaps justly claim the title of the founder of the Rationalistic school, attempted a more connected application of it, especially as to the cases of the demoniacs. His views were taken up by numerous coadjutors and disciples, until they received at last their most fully systematised development in the labours of Paulus.

Polemical divines, both in England and on the Continent, have been too prone to ascribe an irreligious motive to all such speculators; an accusation which, in some cases at least, is quite unfounded. The "Autobiographic Sketches" of Paulus, for instance, present a very different picture of the spirit in which his inquiries were carried on. He appears to have been throughout animated by the most sincere desire of vindicating the truth of the New Testament, whatever may be thought of the wisdom, skill, or success of the attempt.

The publication of the celebrated Wolfenbuttel Fragments, under the name of Reimarus (1773–8), ascribed to Lessing, was perhaps not unjustly considered as one of the most formidable attacks which the cause of Christianity had sustained; since it directly impugned, on critical grounds, the entire credit of its records, especially the miraculous portions of them. It was chiefly in reply to this attack, that Paulus presented himself as the champion of Christianity. He grounded his argument upon the broad principle (in itself so readily admissible) that those portions of the New Testament which have a special reference to the age and

the parties addressed may, and ought to, be carefully distinguished from those which are of a more general and permanent import. In following out this idea, Paulus included miracles under the former class.

Assumed nature of miracles.

According to his view of them, they were real events which were regarded as miraculous in that age and country; but which ought to be viewed in a different light by the more advanced intelligence of our times. They were either extraordinary natural effects; or results whose causes have been simply omitted in the narrative; or the triumphs of superior skill and knowledge, which the Evangelists have described, in the popular language of their day, as supernatural interpositions; or, in other instances, he would suppose them to have really been nothing more than those "symbolic actions," or "acted parables," which were familiar to the Jews, from the recorded instances of such actions performed by the Prophets, designed as merely illustrative of some doctrine, though the nature of them was afterwards misconceived. Paulus at length introduced a complete system of the Gospel history composed upon these principles, in his "Commen-

tary on the Gospels" (1800), and his "Life of Jesus" (1828). To illustrate the nature of these theories, it will be important to consider a few instances of their application in detail.

Miracles by implication.

In certain instances, it is alleged that in the text, when closely examined, no *miracle* will, strictly speaking, be found to be actually asserted, or necessarily implied. Thus, in what is often called the miracle of the tribute money[1], the Evangelist, in fact, only *mentions* a *command* given to Peter, and not the *fulfilment* of it: and even this has been interpreted as merely a proverbial mode of expression for gaining money by fishing.

Events too, it is alleged, are often described as they appeared at the time to the unenlightened disciples, not as they really were: thus that Jesus seemed to their excited apprehensions to walk on the sea, perhaps only wading through the shallows, while Peter's attempt was simply a failure.

Again, many events not in their own nature miraculous, such as a sudden calm, an unexpected shoal of fishes, and the like, could only be so regarded from coincidence of circumstances which

[1] Matt. xvii. 27.

might be ill understood, or omitted in the description. The *miraculous* nature of the introduction of *wine* at the marriage feast, it is remarked, turns only on the expression that it was "a beginning of miracles" (signs), and that "the water which was made wine" only means that Jesus had privately instructed the servants to substitute wine (a usual present on such occasions) when he gave the signal, by commanding them to fill with water.

Some think it may have been a symbolic action; while others ascribe it to mesmerism, or some of those kindred modes of action, which are said to produce effects very similar.

Miracles by exaggeration.

The several narratives of the multiplication of the loaves and fishes have been regarded as magnified in popular apprehension beyond what the strict sense of the facts necessarily implies. The words of Jesus to Philip (after all, not asserting that the multitude had no food) were expressly to prove him[1], by merely putting a supposition: and in none of the other accounts does it absolutely appear that the multitude had no food with them.[2] The inquiry of Christ, and the circumstance that one had provisions,

[1] John vi. 6.

[2] Matt. xv. 32; Mark vi. 36; viii. 1.

would be against that supposition. In two of the narratives[1] the want of food is not hinted at. And it is further imagined that, from the suggestion given by Christ's inquiry, those present who had provisions contributed to supply those who had not. The distribution of the small portion after the solemn benediction, is thus regarded as a purely "symbolical action," or type of the doctrine conveyed in the discourse of Jesus setting forth the true bread of life[2]; or even as having a sacramental design.[3]

The Nativity.

The nativity is thus explained away: according to these writers, Jesus is asserted to have been the son of Mary and Joseph, as universally believed by the Jews, and as, they contend, several passages, especially Mary's calling Joseph His father[4] (to whom also the genealogies apply), seem literally to intimate. They are supposed to have been virtually married; and that the birth excited surprise only on account of the *age* of Joseph, whence it was viewed as specially providential, and said to be

[1] Matt. xiv. 19; Luke ix. 12. [2] John vi.

[3] St. Augustine (Serm. cxxx. 1) compares this miracle to that of the annual multiplication of corn, which he considers *equally miraculous*.

[4] Luke ii. 48.

"of the Holy Ghost." The case is regarded as parallel with that of the birth of John the Baptist; as they think is intimated by St. Luke.[1] It is also alleged by some that "the miraculous conception," in the received sense, is not asserted in so many words even in the narrative of St. Matthew, but rather left to be inferred: and that it is not again referred to in any part of the New Testament; though made so prominent a feature in the Creed of the early Church.

Demoniacs.

The belief of the Jews in ascribing all diseases to the infliction of Satan[2], and especially certain singular forms of mental disorder, accompanied by bodily convulsions, to possession by evil spirits, and their practice of exorcism[3] (we must suppose not without some apparent effect), have been referred to, to explain the ejections as practised in adaptation to the existing belief. This branch of the subject was indeed long since referred to by Lightfoot and other divines of the Church of England, and was followed out in detail by Semler and the older rationalists.[4] The

[1] Luke i. 36.

[2] Luke xiii. 16; Acts x. 38.

[3] Luke ix. 49; xi. 19.

[4] Lightfoot observes ("Horæ Hebraicæ"): "Judæis usitatissimum

difficult case of the possession of the swine, is disposed of by Eichorn on the supposition that the command to go into them was merely a wise compliance with the hallucinations of the disordered person, at whose ravings the swine took flight, and whose cure was mainly assisted by the belief that the expelled spirits had entered into the swine and caused their destruction.

If the Evangelists speak without hesitation in the language of their time of those possessed with devils (*δαιμονιζομενοι*), they speak as positively of those influenced by the moon[1] (*σεληνιζομενοι*); and if they are to be taken literally in the one case they ought to be so equally in the other. Again, it must be remembered that on the subject of evil spirits, in

"erat morbos quosdam graviores, eos præsertim quibus distortum erat "corpus, vel mens turbata et agitata phrenesi, malis spiritibus attri- "buere."

Bishop Douglas ("Crit." 236) explains the Jewish and Pagan exorcisms by natural causes, deception, &c. See "Tracts for the Times," viii. 8; Whitby, Pref. to Epistles, § 10; Farmer on Miracles, 241.

The practice of exorcism among the Jews is testified by Josephus ("Antiq." viii. 2, 5) as common in his time, as it is still in some parts of the East (see "Phases of Faith," 128), and traced up to Solomon. See Krebsius on Acts xix. 13; see also Dr. H. Farmer "On the Demoniacs of the New Testament," 1775.

[1] Matt. iv. 24; xvii. 15.

the absence of *all* evidence from *natural* science the whole popular belief rests entirely on the *verbal* interpretation of the Scripture expressions.

Healing of diseases.

The various *general* statements of "healing" the sick might, it is pretended, often signify only prescribing means for their cure. Some more specific instances, it is alleged, may have been only the public announcement of cures previously wrought; or even the ceremonial recognition of them with a view to the legal purification. Sometimes even the mere detection of a mendicant impostor may have been afterwards misconceived as a cure.

Paulus imagines, for instance, that the lepers were already in a sufficient stage of recovery to be pronounced clean according to the law, and that Jesus merely seized a public opportunity of formally declaring them so.

It is supposed that Christ possessed great medical skill, beyond his contemporaries: which was of course regarded as supernatural[1]: and that He thus foresaw

[1] Dean Trench and other divines, with no leaning whatever to rationalism, have collected many instances where cases parallel to the Gospel miracles are alluded to by secular writers. For example, the anointing of the eyes of the blind is referred to: "Lippitudines matutinâ quotidie solent inunctione arceri." (Plin. "Nat. Hist." xxviii. 2.)

the recovery of the centurion's servant. In some cases the application of *means* is mentioned; in others it may be supposed. Nervous[1] influence and effects allied to mesmerism are largely appealed to, especially for visions, trances, voices, and the like.[2]

Raising the dead.

The cases of raising of the dead have been in like

Suetonius ("Vespas." 7) and Tacitus ("Hist." iv. 8) both mention saliva used by Vespasian in such a cure.

Lucian ("Vera Hist." ii. 4) alludes to walking on water (also in "Philopseudes," 13) as among the incredible tales of poets, historians, and philosophers. Also to healing, expulsion of demons, &c.

[1] Luke viii. 40; Acts v. 8; xiii. 12; xx. 1, &c.

[2] With respect to the idea of explaining miracles by mesmerism or the like agency, a very able advocate of the so-called "spiritualistic" manifestations at the present day, (whose remarks being printed for private circulation only I am not, perhaps, at liberty to quote by any more express reference,) observes positively:—

"The development of the phenomena of mesmerism, clairvoyance, "and what is commonly called electro-biology, have shown unmistake- "ably that the supposed miracles of Christ were due simply to a power "inherent in human nature, though, like other powers, bestowed in "lavish measure but on the few. Rationalism, which had resorted to "interpretations of the supernatural (so-called) incidents of Scripture, "so extravagantly forced and opposed to common sense, has thus be- "come supplied with arguments of a very different kind and effi- "ciency."

In a note he ascribes the shining of the face of Moses to a luminous appearance or halo produced by mesmerism; and in another place contends that the Roman Catholic miracle, the elevation of St. Cupertin from the earth, is precisely an effect (as he asserts) frequently exhibited among "spiritualists" by the agency of natural causes of the class referred to.

manner viewed as instances of "suspended animation." In the case of Lazarus, they observe that, had not the body been thus preserved, decomposition must have commenced. These cases are compared with the recovery of St. Paul after being left for dead.[1] Even the death of Jesus is thus regarded: it being undoubtedly quite out of the ordinary course that He should expire so soon as within a few hours; since crucified persons were known to continue alive for several days: and thus it is averred that the revival may have commenced as soon as the body was laid in the cave. Medical testimony is adduced to show that a state of suspended animation often exhibits every symptom of death, the only actual proof of which is the commencement of decomposition: and nothing is more insisted on than that the body of Jesus "saw no corruption."[2]

Death and resurrection of Christ.

[1] Acts xiv. 29.

[2] Acts ii. 31; xiii. 37.

Josephus ("Contra Apion." 1031) and others mention that persons crucified commonly lived three, sometimes even nine days. Cardinal Wiseman ("Lectures," i. 266, on "Connexion of Religion and Science,") quotes a minute account of the sufferings of a person subjected to this punishment, who existed forty-eight hours.

Some startling cases of suspended animation are mentioned in Dr. H. Mayo's letters on "Truths contained in Popular Superstitions," p. 33.

One of these commentators maintains — that it was *not* the practice of the Romans in crucifixion to nail the *feet*, and would thus remove the difficulty of Christ's *walking* to Emmaus: that He showed Thomas only His *hands* and his side: while the common belief arose from the desire to see the literal fulfilment of the prophecy.[1]

The ascension.

The rare appearances after the resurrection, it is pretended, are accounted for by the necessity of keeping out of the way of the inveterate Jews. Hence also (according to these views), even the ascension itself is represented as a final retreat from the world;—as a disappearance from the Apostles in a cloud which enveloped the top of the mountain; Jesus having "gone apart" (*διεστη*, Luke xxiv. 57), which corresponds to *πορευομενου* (Acts i. 10), not "going *up*" but going *away;* while the general expressions (*επηρθη* and *ανεφερετο*), "carried up into heaven," being indefinite, it is contended do not necessarily imply the literal bodily ascent familiar to received belief and pictorial representation.

Miracles of the Apostles.

The narratives of the apostolic miracles in the Acts are, perhaps with still greater readiness, brought

[1] John xx. 27; Ps. xxii. 17.

under a similar mode of explanation by writers of this school:—even the excellent and learned Neander[1], while he upholds high spiritual influences, yet in regard to some of the *physical* miracles suggests interpretations of a kind according closely with the naturalistic theory.[2]

Thus, the events at Pentecost are described as "an earthquake attended by a whirlwind and flaming lights:" external events conspired with internal impressions to make the Apostles fitting preachers of the new faith; and, after a laboured kind of explanation of the gift of tongues, it is finally suggested that the Apostles might possibly have already possessed among them some knowledge of the various neighbouring dialects (each, perhaps, being acquainted with some one or two), which was intensified in their then highly excited condition.

Ananias, it is asserted, was struck dead from mere terror; an effect which in the case of Sapphira was powerfully aided by the sudden announcement of her husband's fate. Again, the varied "gifts" are largely

[1] History of "First Planting of Christianity," 1832, transl.

[2] We shall see in the sequel that in more important instances he has adopted a different view. See *infrà*, § v.

discussed in a similar liberal spirit of interpretation; though in some cases of healing the explanation is not fully carried out. In cases of appearances, as of angels, it is held that the presence of a real sensible object is not necessarily implied.

St. Paul was simply overtaken by a thunder-storm, and struck with lightning. This cooperated with spiritual convictions already beginning to work in him to effect his conversion. He himself calls it a "heavenly vision."[1] It is admitted, however, that there was some appearance of Christ, which was necessary to make him a witness of the resurrection.

The possessed damsel at Philippi was simply "in a state resembling somnambulism," from which she was awakened by the Apostle.

General remarks.

But, without going into more details, it will probably suffice to remark in general on such explanations, that although in some instances they have a semblance of plausibility, yet it cannot be denied that in the incessant attempt to find or force such interpretation in *every* case, — "Aut viam inveniam aut faciam," — the resources employed are often of a trivial, far-fetched, and laboured kind; and the

[1] Acts xxvi. 19.

immense multitude of coincidences and combinations of circumstances and extraordinary occurrences, which it thus becomes necessary to suppose concentrated in one short period, presents too complex a mass of hypotheses to furnish a real and satisfactory theory of the whole series of the evangelical miracles. Yet it should be observed that such attempts, even if injudicious, must, in some instances at least, be allowed the credit of having originated in the sincere wish to elucidate and vindicate the sacred narrative. At all events they ought not to be condemned indiscriminately, on the ground that such a mode of endeavouring to remove objections in any one instance will encourage the disposition to explain away everything: an argument which, if valid, would condemn all elucidation of difficulties whatever.

Let these explanations be fairly judged and estimated on their own merits; and with especial reference to the question, whether they would really affect the doctrinal application of the narratives, or afford less substantial foundation for the argument which the Apostles grounded *on them*.

§ III.—THE MYTHIC THEORY OF STRAUSS.

Introductory remarks.

UNDER the generic name of Rationalism many varieties have been included, but it would be difficult to find any two systematic investigations more entirely opposed to each other, even in their first principles, than those of the older and the later rationalists;—the disciples of Paulus and of Strauss;—the advocates of the "Natural" and those of the "Mythic" system;—the interpreters of the evangelic narrative regarded as historical, but explained in its miraculous events by natural causes; and the philologists who on critical grounds deny the historical character of the incidents, and represent the narratives as intrinsically and designedly fictitious, and as a mythical invention for exalting the Messianic character of Jesus. Of the last school, the most distinguished supporter, though not the entire originator, is Strauss.

In maintaining a system thus essentially at va-

riance with that of the older rationalists, Strauss introduces, and makes way for, his own speculations in every instance, by a sweeping and unsparing attack on all the interpretations of the "natural" school, to such an extent that the most orthodox divine could not desire a more thorough *demolition* of the systems of Paulus and Eichorn, than that with which Strauss furnishes him, carrying with it all the additional force which belongs to the testimony of an opponent.

Woolston's views.

Strauss expressly refers to Woolston[1] as having more than a century ago started some speculations much of the same kind. He represents Woolston's theory as putting an alternative between the "naturalistic" view of miracles or their explanation as real facts by natural causes, and the acceptance of them as the allegorical vehicles of divine truths. In other words, he contends that, to be a true history, they must lose their divine character; to retain it, they must cease to be a true history, and be regarded as mythical.

If this is to be understood as intended to cha-

[1] 1726—9. See above, Essay I. p. 136. Strauss's "Life of Jesus," Introd. § v. French Transl. i. 23.

racterise the argument of Woolston, it is certainly overcharged.

The speculations of Woolston are utterly devoid of all pretension to a philosophic character: he never betrays the slightest conception of any reference to physical generalisations, though he exhibits great research and erudition, especially in his appeals to the Fathers and ecclesiastical antiquity: his whole discussion is characterised by a strange eccentricity of manner, and unhappily too often couched in a tone of ridicule and sarcasm, directed against the most serious subjects, and coupled with offensive attacks on the theologians of his day, which, probably more than his abstract opinions, exposed him to the persecution he underwent.

He attacks the literal sense of the Gospel narratives merely on the ground of what he regards the *unworthy character* of the miracles, which he charges with inconsistency and uselessness; and especially as affording no proof of the *Messiahship* of Jesus: examining each in detail, and enlarging on the objections. On this plea against accepting them *literally*, he adopts the idea of interpreting them as allegorical symbols and representations of

the spiritual doctrines of the Gospel, and of the character and office of Christ, which he zealously upholds; and defends his interpretation by copious quotations from the Fathers, some of whom it is well known adopted similar views.[1]

Origin of the mythic theory.

Strauss makes it his primary assumption that in the received sense of real suspensions of nature miracles are "impossible:"[2] and hence, considering the "natural" explanations as frivolous and unsatisfactory, he seeks some rational grounds for the origin of the narratives. When he proceeds to details we cannot but own the ingenuity and acuteness with

[1] The following extract from a passage in which he is summing up his views, will give at once some clue to his meaning, and exhibit a truly characteristic specimen of his style: —

"Imprimis: I believe, upon the authority of the Fathers, that the "ministry of the letter of the Old and New Testament is downright "anti-Christianism.

"Item: I believe, upon the authority of the Fathers, that the mira-"cles of Jesus, as they are recorded by the Evangelists, *literally* under-"stood, are the lying wonders of Anti-Christ.

"Item: I believe, upon the authority of the Fathers, that all oppo-"sition and contradiction to spiritual and allegorical interpretations of "the Scriptures, is the sin of blasphemy against the Holy Ghost.

"Item: I believe, upon the authority of the Fathers, that the "ministry of the Spirit, or allegorical interpretation of the law and the "prophets, will be the conversion of Jews and Gentiles," &c. &c. — WOOLSTON, *Ninth Discourse*, p. 68.

[2] Introd. § XIII.

which he has worked out the critical data, and the uncompromising boldness with which he has applied to every part of the Gospel narrative, his universal solution of all its difficulties, the hypothesis of its mythic origin. This idea had confessedly been applied by some earlier writers, as Rosenmüller and Anton, to certain portions of the Gospel; and, so limited, was acknowledged to possess the sanction of the Fathers.[1] But Strauss was the first to apply it generally; and to justify it on the strength of general considerations, derived from the *probable* circumstances under which the Gospel narratives were produced, and from the absence of direct evidence as to their origin.

Strauss's argument.

The argument in behalf of this hypothesis is supported by a searching examination in detail of every portion of the history. All the resources of criticism are employed to bring out, in their strongest contrast, every circumstance of discrepancy between the different narratives, and the different parts of the same Evangelist. Whence the author proceeds to account for them on the supposition of divers

[1] Introd. § IV.

versions having been formed out of a collection of traditional "myths," originating in the character and attributes which the Jews expected to find in the Messiah; — all of which, accordingly, the followers of Jesus believed were found united in his person and life.

Critical grounds.

The broader grounds on which Strauss frames his theory ought to be examined distinct from its details. He enters in the first place largely into the discussion of the general question of the criticism of history when it presents marvellous features; and observes particularly that in narratives composed some time after the events, and especially under strong and peculiar prepossessions, it becomes very difficult to determine what share the *opinions* of the writers had in giving the tone of the representations, and the colouring of the events recounted.[1]

In that age, he observes, even the learned among the Jews, — without reference to peculiar religious views[2], — had not the precise idea of critical history. And in regard to religious narratives, especially in certain stages of advance, history and fiction are

[1] Strauss, French transl. vol. i. p. 32.

[2] Ibid. vol. i. p. 79.

not clearly distinguished; and under the influence of a peculiar doctrinal belief and a powerful faith, the one migrates insensibly into the other.[1]

Theory of myths.

Hence, the conception of *myths*, of which Strauss discusses extensively the theory and history; and on philosophical grounds contends that they must form an unavoidable element in all religious systems; it being the very nature of religious faith to give that ground of assurance to the conscience under the form of an *image*, which philosophy gives as an *idea*.[2] A *myth is a doctrine expressed in a narrative form*, an abstract moral or spiritual truth dramatised in action and personification; where the object is to enforce faith not in the *parable* but in the *moral*. According to Strauss's view, the formation of myths constitutes a necessary stage or phase in the development of the religious conceptions of man. He regards it as the only way in which, in a ruder and simpler state, men can possibly realise those relations of a higher and more spiritual kind, of which they have a vague and indefinite, yet powerful, perception; and which they are wholly inca-

[1] Strauss, French transl. vol. i. p. 104.

[2] Ibid. Introd. § xiv. vol. i. p. 91.

pable of accepting in an abstract sense. They thus frame some imagination of what is spiritual and unseen, by the fiction of persons and actions recognisable by sense, and vividly put forth in descriptive narration. Thus, every dogma is more or less a myth, as it is necessarily conveyed in analogical language and anthropomorphic action.

Discrepancies in the narrative.

In examining the narratives of the existing Gospels taken as they stand, Strauss first dwells forcibly and minutely on all the discrepancies, bringing them out in the strongest relief. Thus he enlarges on the "quæstio vexata" of the two contradictory genealogies, which, after the volumes of erudition employed on them, still remain as irreconcilable as when Luther prohibited the discussion as among the "endless genealogies" censured by St. Paul:—The well-known chronological difficulties of the census; many circumstances connected with the Nativity; the obvious incompatibility of the presentation in the temple and residence at Nazareth, with the visit of the Magi and flight into Egypt, as well as the historical difficulties attending the massacre.

The various discrepancies in the several histories of John the Baptist are then pointed out; in those of

the baptism of Christ,—in the circumstances of the commencement of His ministry, and the call of the Apostles;—the differences in the several accounts as to the occasion, the connection, and the matter of His several discourses and detached sayings; especially the Sermon on the Mount, and some of the parables. In these and other instances the author traces the apparently varied combinations of portions of different discourses and narratives put together according to the different views of the compilers.

Distinct characters of the Gospels.

Besides these points he enlarges on the entirely distinct character of the first three Gospels from that of the fourth, marked in particular by the several journeys to Jerusalem, while the others represent the whole ministry as confined to Galilee or the adjacent districts till the final visit to Jerusalem; the discrepancies in the accounts of the crucifixion, and especially of the resurrection, the subsequent appearances, and the two accounts of the ascension compiled by St. Luke. On such points of material variation as well as on general grounds of criticism, Strauss infers that the Gospels cannot claim any properly historical character; that they in very few instances convey the testimony of eye-witnesses, but

consist of fragments compiled from different sources, of whose origin or authenticity nothing can be collected; that in our ignorance of the dates it is quite possible that a sufficient interval occurred between the time assigned to the events and the composition of the narratives, to allow a wide opening for mythical invention to mingle with, or rather arise out of, the belief respecting the Messiahship of Jesus, to exalt which would be the object and moral as it were of the parables so framed.

Opening for the invention of myths.

In some cases, similitudes to which Christ referred in His instructions may have been as it were dramatised, and misunderstood as miracles. Such myths as vehicles of religious doctrine were familiar to Jewish apprehensions, and this concurring with the consideration that the mind in certain earlier stages of progress does not clearly draw the line between history and fiction, Strauss thinks will sufficiently account for the actual formation of the Gospel narratives according to the Jewish expectation of the Messiah. He must be supposed surrounded with at least as much mystery and miracle as the ancient prophets, and even with more; and the wonders recorded of them furnished or suggested

Myths from the idea of the Messiah.

Origin of miraculous narratives.

the materials for mythic representation of the glories of the Messiah. Thus several of the incidents are only recounted on the plea "that it might be fulfilled which was spoken by the prophets."

Such prepossessions, together with the natural proneness to magnify in after times the origin and lives of those who have risen to high eminence, Strauss conceives tended together to produce the entire myth of the nativity and its attendant events, — the formation of the several genealogies of Joseph, to accord with a descent from David, — as well as many of the subsequent narratives of the scenes of Christ's Messianic office and ministry. The same process is applied, with a facility before which all difficulties and objections are made to give way, to resolve almost every circumstance, especially those of a miraculous nature, into fable.

Mythic view of the resurrection.

At length (on this view) the delivery of Jesus to death having put an end to the temporal hopes of His followers, in the strong revulsion of their feelings they began to conceive an enthusiastic belief in the spiritual nature of His kingdom. This new idea, earnestly cherished and supported by a spiritualised view of the meaning of many passages in the Old

Testament,—derived from the recollections of the private instructions of their Master,—working powerfully on their bewildered, anxious, and excited minds, was further heightened perhaps by spectral impressions, and at length an extraordinary excitement at the feast of Pentecost;—all which combined to create the myth of the resurrection and ascension, which they now boldly declared as the true interpretation of the Messianic parts of prophecy, and made the basis of the new doctrine. The Scripture required that Christ must die and rise again, they therefore believed that Jesus *had* died and risen again. The impressions thus vividly excited in their minds, repeated and enlarged upon in varied forms, were afterwards put together in the several mythical narratives, out of which, in different fragmentary combinations, the existing Gospels took their rise.

General remarks on Strauss's theory.

The account given by Strauss of the formation of nearly the whole narrative, allowing some small basis of ordinary history, in the way of designed myths, however plausible, in some instances, in detail, seems, as a whole, an hypothesis of so extremely overstrained and improbable a character when applied generally, that the sober critic,—to say nothing

of the devout believer,—may well be staggered at the contemplation of it.

Some points admissible.

Many of the suggestions on which the theory rests, considered abstractedly, are, however, no doubt reasonably open to fair consideration. In respect to some of the discrepant parts of the narrative, the existence of serious difficulties cannot be disputed. For instance, in the several varied accounts of the resurrection, (on which Strauss dwells so much,) it can hardly be questioned that there is room for difference of opinion, or that some of the representations may be thought to accord better with a real bodily revival, others with a spiritualised appearance: and that the narrators had not themselves any very defined view as to their recollections or impressions, which were all absorbed in the one great thought of the application of the Messianic prophecies.

Again, it might be readily conceded as possible that there might be in some cases a typical or doctrinal intention, which came to be overlooked in the desire to discover sensible miracles; as, for example, in the conversion of water into wine; the multiplication of the loaves; or the walking on the sea.

While in other instances,—as in the Incarnation and the Ascension,—the event *as such* is never afterwards mentioned, but only alluded to in a purely *doctrinal* or *spiritualised* sense: and it may be on all hands admissible that doctrinal and didactic objects may have had a greater or less share in the dictation of those narratives; as would seem more confessedly to characterise the composition of the fourth Gospel.[1]

Other points untenable.

The main objection to the mythic hypothesis consists in the fact that in the universal predisposition of that age towards the supernatural, the miracles were believed to have *really* occurred *by the Jews* and other *enemies* of the faith, however differently they might interpret them.

Thus the point is to account for this *literal* reception of the facts, to explain how narratives drawn up designedly as myths should have come to be universally mistaken for true histories both by friends and *opponents?*

The Jews ascribed the miracles of Christ to evil spirits (except the resurrection, which they denied).

[1] See John xx. 31.

Celsus and Julian, and other heathen opponents, set them down to magic, imposture, or superior skill in natural means; but never for a moment attacked the account of them as *purely fictitious*, — which would have been an obvious reply at once destructive to their pretensions.

Critical difficulties.

Strauss's *criticisms* and review of the *documentary evidence* must be fairly taken apart from his theory of myths. No discerning reader would deny the existence of the *discrepancies* on which so much stress is laid, and which cannot be removed without doing more or less violence to the letter of the text; nor could he refuse assent to the inference that where these differences are real, the writers were not in those instances preserved from inaccuracy, and would consequently allow the propriety of not attempting to stretch the *literal* authority of the text too far. Nor can we shut our eyes to the bearing of this consideration, or the uncertainty as to the origin and sources of the formation of the narratives, on the strength of such very precise attestation as miracles are admitted by the evidential writers to require.

Doctrinal

But we must fairly estimate and allow for the

obvious character and design of these compositions. The impression on the mind of the discerning reader can only be that the writers or compilers of the Gospels put together their narratives in a simple and unsystematic manner: devoted to one great object they paid little attention to the exactness which in modern times is expected in historical composition. They represent events in the aspect in which a reference to that object would place them; and describe them, as they were traditionally reported and believed to have occurred, in the phraseology of their age and country, and in accordance with their own impressions and prepossessions, or the ideas, belief, and prejudices of their education.

Objects of the Evangelists.

Lastly, it appears from Strauss's own declaration that he regards the mythical exposition as in no way impugning doctrinal belief;—though the sense in which he interprets that doctrinal belief may be found of a somewhat unusual and not very intelligible kind.

He observes:—"The author knows that the internal essence of Christian faith is completely independent of his critical researches. *The supernatural birth of Christ, his miracles, his resur-*

Influence of the mythic theory on doctrines.

"*rection, and his ascension into heaven, remain*
"*eternal truths,* to whatever doubts the reality of
"the facts in the light of historical events may be
"subjected. This certainty alone can give repose
"and dignity to our critical examinations, and dis-
"tinguish them from the explanations on natural
"principles of former ages: explanations which,
"dreaming to overthrow at once religious truth with
"historical fact, were necessarily marked with a
"character of frivolity. A chapter at the end of
"the work will show that the dogmatic sense of the
"life of Jesus has sustained no loss."[1]

In the concluding portion of the work, after an elaborate examination of all the various schemes dogmatic and mystical, adopted, whether by orthodox or rationalistic divines, respecting the real nature, character, and mission of Christ, the author's view of the case is given as follows:—"We conceive "Christ, as he in whose spirit the unity of the "Divine and the human has risen, for the first "time, with energy, to such a point as to leave in "his entire moral nature and life, no more than an

[1] Strauss, "Life of Jesus," Preface to 1st edit. French transl. p. 8.

"infinitely small value to anything impairing that "unity; and who, in this sense, is unique and with- "out equal in the history of the world; although "the religious spirit attained and promulgated by "him for the first time has not been able in detail "to withdraw itself from the purification and ex- "tension which result from the progressive deve- "lopment of the human mind."[1]

These declarations are of a sufficiently vague character; and it would be easy to cite others in which the author follows out interpretations more utterly extravagant, mystical, and fanciful.[2] These speculations certainly do little to commend Strauss's theory to any rational inquirer, and less towards any explanation of miracles. There is no end to the visionary fancies which a fertile imagination may construct out of the plainest narrative;—but all this has no relation to the question of fact,—what was the real design and actual mode of composition of that narrative?—which carries with it all discussion whatever of the miracles; and the general reception of these memorials confessedly rests on the

[1] Strauss, "Life of Jesus," Final Diss. § CLXIX.

[2] See especially, vol. ii. p. 762.

traditional testimonies delivered by Irenæus, Eusebius, Jerome, and others of the Fathers, mixed up as they are with much which is fanciful and legendary, and equally appealing to other writings now generally rejected. There is, however, the strong internal evidence of the style and language, which, to the scholar, stamps them at once as productions of the Apostolic age. While in a religious point of view the concurrence of succeeding ages in receiving these narratives alone, out of many which existed, confers the sanction due to the belief of the early Church, and invests them with the character of prescriptive objects of faith.

§ IV. — THE SUBJECTIVE THEORY OF FEUERBACH.

General view.

THE remarkable speculations of Feuerbach[1] tend to reduce all religious belief whatever to mere internal impressions, or ideal images, the subjective representations or reflections of man's own moral feelings or spiritual aspirations, so vividly conceived as to be mistaken for external objective realities. This idea, commencing from the very belief in a God[2], is extended to all parts of the Christian scheme, and thus includes *miracles;* — though, as the author observes, he is professedly considering only "their religious significance and genesis," and thus does not discuss their evidence, or attempt to explain them in historical detail. He distinctly allows[3] that "many miracles may really have had originally a "physical or a physiological phenomenon as their

[1] Essence of Christianity, transl. London, 1854.

[2] Of the Theistic part of this theory I have given a sketch in the "Oxford Essays," 1857, Essay v. p. 201.

[3] Note, p. 133.

"foundation." But in accordance with the principle of his theory, the miraculous parts of them are viewed as being the result of internal impressions believed to be external realities: the reflection upon itself of the earnest aspirations of the soul, which are realised by the sole influence of intense internal conviction.

Principle of supernaturalism.

According to the author's theory, there exists necessarily a perpetual antagonism between the religious principle and the recognition of external nature. Hence the supposition that the laws of nature must be subdued to the superior power of religious faith. Hence supernaturalism is the essential element of religious belief. "As long," he says, "as true, unfeigned, unfalsified, uncompromis-
"ing Christianity existed;—as long as Christianity
"was a living practical truth,—so long did miracles
"happen: and they necessarily happened, for faith
"in dead, historical, past miracles is itself a dead
"faith,—the first step towards unbelief,—or rather
"the first, and therefore the timid, uncandid, servile
"mode in which unbelief in miracle finds vent."[1]

Miracles subjective.

[1] Essence of Christianity, transl. p. 132.

He admits that a miracle may include some substratum, as it were, of real events, or external conditions; but the essential part of the *supernatural* event consists entirely in the mode or process; as in the healing of the sick, which becomes miraculous when believed to be effected suddenly by a word;—coinciding with earnest desires and undoubting confidence. "The power of miracle," he says, "is nothing but the power of the imagination"[1] .... "miracle is to reason inconceivable." Again, he observes, "Miracles confirm and authenticate doctrine;—what "doctrine? simply this, that God is the Saviour of "man,—their Redeemer out of all trouble—*i. e.* "a being corresponding to the wants and wishes "of man;—and therefore a human being: what "the God-man declares in words, miracle demon-"strates *ad oculos* by deeds."[2]

After dwelling on the nature of any miraculous act, *e. g.* the conversion of water into wine, as involving physically a contradiction, he adds, "The "miraculous act,—and miracle is only a transient "act,—is therefore not an object of thought, for it

[1] Essence of Christianity, p. 129. [2] Note, ibid.

"nullifies the very principle of thought; but it is "just as little an object of sense,—an object of real "or possible experience; .... miracle is a thing of "the imagination."[1]

If such a mode of explanation should be objected to as superficial and unsatisfactory, the author invites the reader to transplant himself in thought to the times and country in which the miracles were believed to occur; to consider the universal faith in the supernatural continually manifested, and hence to see the explanation of miracles in the ardent aspirations and undoubting expectations of the believing Spirit; and the power of imagination exalted to such a pitch as to cause a belief as if of sensible facts occurring to the individual, experienced in his own person, witnessed by his own senses, or occurring to others, or in external objects.

Remarks. It may be freely admitted that it is difficult, if not impossible, to set limits to the deceptions which imagination may practise upon us, especially under the influence of peculiar conditions of bodily or organic affection or excitement, by which it may be exalted

[1] Essence of Christianity, p. 130.

to an almost incalculable pitch of intensity. But the real difficulty lies in applying these or other similar modes of explanation *in detail*, and in making them accord with the precise circumstances of any recorded case in the Gospel miracles; and if we once invade the integrity of the text, the necessity for *any* explanation is done away.

§ v. — THE PSYCHOLOGICAL THEORY OF EWALD.

Obscurity of this theory.

In the theological literature of Germany the title of a "Life of Christ" has conventionally become the generic designation of an entire class of writings. To the already numerous list of these productions, each taking their particular theory of the subject, another has been recently added from the pen of the celebrated Orientalist Professor Ewald, which presents a view of the whole course of the Gospel narrative considerably different from those of any of his predecessors, repudiating in fact much of the rationalistic ideas, and leaning towards a more supernatural and spiritualised conception. Yet on the particular point of the miracles, the mystical tone which he adopts throughout so much obscures his meaning, that it seems difficult to collect any positive clue to the light in which he really regards them.

The following passages may, however, serve to convey some notion of his mode of viewing the case:—

"In Christ the common labours of every day were "an unbroken series of mighty works; what, there- "fore, must those actions of his be, which, in certain "rare moments, as if out of the concentration of "spiritual forces already roused into the highest "activity, sprang forth above the ordinary level of "his life! So far then we have no reason whatever "to limit the measure of spiritual forces, and arbi- "trarily determine how far in Jesus they might reach "in the course of their highest operation." . . . . .

"But then this mighty effort and agitation of the "inmost powers of the purest and loftiest spirit as "it wrought in Christ, moving the world by his "deeds, was so promptly met on the other hand by "the highly raised expectations and willing faith of "his disciples, that in those rare moments of which "we have spoken they saw all the infinite greatness "realised, which they dreamed of and hoped for in "Him. It was only out of the concurrence of these "two spiritual movements that there arose into vi- "sible shape, the conception and description of those "rarer displays of the highest results and mightiest "signs in which, as in some mysterious foreboding "or rapt vision, a deep-rooted faith can alone ex-

"press its true sense of the actual manifestations of "the highest in Jesus. Here already in actual his- "tory, although in only a few of its more favoured "moments, the intensest longing had found its sa- "tisfaction .... and if in former days a like feeling "had striven to still its cravings with the far lower "manifestations of Elijah and Elisha, how much "purer satisfaction was opened to it in the history "of Christ?"[1]

Ewald adds in a note to this passage, "That the "narratives (of miracles) in the New Testament have "altogether grown out of those of the Old is a view "completely at variance with history; nevertheless, "it is true that the facts of the former were expected "in consequence of the latter, and the narratives of "them therefore the more easily formed themselves."

Supposed psychological principle.

The author's theory seems to depend on the assumption of the existence of a peculiar kind of action of spirit on matter, whence I have ventured to call it a psychological theory. This kind of action he supposes capable of a singular degree of exaltation under particular conditions;—a transcendent instance of which was furnished in the person of Christ.

[1] Life of Christ, p, 196.

It would seem that the author allows something for the "formation of the narratives" of the Gospels; and thus probably the theory which we are to collect, would be that Jesus possessed these spiritual powers in an exalted degree; and the reputation he acquired for them, combined with the sanctity of his life, and the overpowering influence of his preaching, obtained for him such an unlimited veneration on the part of his followers, that all his actions were soon invested in a halo of mystery, which in course of time naturally became exaggerated, and produced the existing narratives of his wonderful works: and that the Jewish prepossessions of his followers further connected all these characteristic peculiarities with the ideas they already entertained respecting such manifestations in the old dispensation, to which these were assimilated, more especially under the influence of the belief in the Messianic sense of prophecy, when they came to understand it no longer in a worldly and temporal, but in a spiritual and heavenly, sense.

Origin of narratives.

In some instances Ewald seems to fall in with the naturalistic interpretation of the older rationalists which he elsewhere is inclined altogether to condemn. Thus he represents the miracle at Cana as

Leaning towards natural interpretation.

wholly *symbolical.* "It was," he says, "the joyous "influence of his" (Christ's) "spirit which made the "guests drink water as wine."[1] So again, the possession of the swine is regarded as a mere *coincidence*, connected with the case of the demoniacs only in popular belief.[2] The raising of Lazarus is interpreted into an *idealised representation* of the strong assurance which the comforting presence of Christ gave to his followers of the belief in a future resurrection, on the occasion of the death of one of their number.[3] And in the same spirit the *resurrection of Christ* himself is spoken of as simply "*an eternal glorification*," the idea having originated in the subsequent belief of the apostolic period, and therefore not entering as a fact into the *historical* life of Christ.

Remarks. Upon the whole, uncertain as we may feel whether we entirely apprehend the author's meaning, which seems involved in so much mysticism of expression, we yet collect enough to perceive a general acknowledgment on his part that some broader principle ought fairly to be resorted to than the narrow, and (as we may

[1] Life of Christ, p. 224. [2] Ibid. p. 299. [3] Ibid. p. 361.

consider it at the present day) generally renounced notion of real violations of the order of nature. Of the power of mind over matter we can form little idea; of the power of mind over mind,—of an exalted spirit over those of inferior capacity,—we may incline to larger admissions. But in such cases as these before us we seem hardly able to advance beyond the most vague and general conjectures, so long as we appeal to any sort of *philosophical* speculations.

§ VI. — THE DOCTRINAL THEORY OF NEANDER.

More orthodox speculations bearing on rationalism.

A "LIFE OF CHRIST"[1] produced some years after the publication of his histories of the "Early Christian Church," and apparently designed as an introduction to them, exhibits on the part of the distinguished, pious, and learned Neander, a considerable recession from the at least semi-rationalistic tone we have already noticed in some of his earlier inquiries, and a strong leaning towards the more orthodox interpretation. Yet the examination of its contents is eminently important in reference to our present subject. It was regarded by some as a reply to Strauss; but the author seems to intimate that such was not his design, nor indeed does the work fulfil any such expectation.

Origin of the Gospels.

In regard to the critical question of the origin of the Gospels, Neander admits the supposition that the first three Gospels were simply compilations of

[1] Published 1837, translated 1848, in Bohn's Standard Library.

existing traditions.[1] He moreover distinctly states his opinion that "the Gospel of Matthew, in its "present form, is not the production of the Apostle, "though it is founded on an account written by him "in Hebrew."[2] The hypothesis of the fourth Gospel having been written in the second century he rejects, simply on the ground that its whole style and manner are alien to the ideas and opinions prevalent in that age.

Our present object, however, is merely concerned with his view of the *miracles*, and this is clearly to be understood as resting, in every particular instance, upon the universal application of one common great principle, assumed and fully expounded in the commencement.

Miracles as subordinate parts of a supernatural system.

Neander sets out with the distinct assumption that Christianity is altogether a "divine manifestation" of which he considers miracles to be a natural and necessary part and consequence.[3] But admitting generally the Divine manifestation, the farther question arises;—Is it more credible and probable that such manifestation would be external or inter-

[1] P. 7. [2] Ibid. [3] Introd. p. 2, 3.

nal, physical or spiritual? And throughout the whole of Neander's subsequent views, though the former idea is generally or apparently implied, yet in many passages his meaning may seem such as to incline much towards the more spiritual and internal view of the case.

In his general discussion of the nature of miracles[1], he maintains that a *physical event*, however *extraordinary* or *inexplicable*, may be fully admissible on sufficient evidence; but this does not constitute it a *miracle*. With respect to a *proper miracle*, he observes, that "within the sphere of religion alone "the conception of a miracle is a *reality*. It "leaves us still in the domain of nature and of "natural agencies. It is not upon this road there-"fore that we can lead men to recognise the super-"natural and the Divine, — to admit the powers of "heaven as manifesting themselves on earth. Mi-"racles belong to a region of holiness and freedom, "to which neither experience nor observation nor "scientific discovery can lead. There is no bridge "between this domain and that of natural pheno-

[1] Book iv. pt. ii. ch. v. p. 132—162.

"mena. Only by means of our inward affinity for "this spiritual kingdom, only by keeping and obey- "ing in this stillness of the soul the voice of God "within us, can we reach those lofty regions."[1]

The author also subsequently draws a parallel, that as in nature Omnipotence is always acting, but is only traceable in natural causes, so in miracles the divine agency is *not directly* seen, but is perceived only by *faith*.[2]

Miracles objects of faith.

The main point on which I would remark as evinced in these and numerous other passages to the same effect, is, that the acceptance of miracles as such seems to be here distinctly recognised as the sole work of a *religious principle of faith*, and not an *assent* of *the understanding* to *external evidence*, the appeal to which seems altogether disowned and set aside. Conviction appears to be *avowedly* removed from the basis of testimony and sensible facts, and placed on that of spiritual impression and high religious feeling.

Again, to complete the distinction between a *marvellous event* and a *miracle*, he says it is neces-

[1] P. 135.

[2] P. 137.

sary "that the Divine power in the phenomenon "shall reveal it to our religious consciousness as a "distinctive sign of a new Divine communication "towards the natural progress and powers of hu- "manity."[1]

It is clear then that the test here supposed to be applied (if such it can be called) for distinguishing a miracle—is a purely internal assurance of Divine communication, which of course, it is implied, is more certain than sensible evidence. It is therefore difficult to see wherein this view differs from that which entirely supersedes external by internal evidence, and renders the former wholly superfluous, and therefore in fact incredible to reason, however acceptable to religious feeling or faith.

In proceeding more precisely to the miracles of Christ he regards them all (in accordance with his broad principle) as merely subordinate parts in the far greater and paramount miracle of his manifestation on earth[2], and as more especially showing forth his glory[3], and therefore discusses them very little in detail. He appears to admit that ordinary

[1] P. 136. [2] P. 138. [3] P. 141.

rational history cannot include miracles as such.[1] But the manifestation of Christ must be taken as a whole, and constitutes one great historical event, into which *the miracles* enter *merely as subsidiary* and *natural accessories.*

Miracles relative to the parties addressed.

Neander dwells much on the *qualifications of the individual mind* for the reception of a belief in miracles, requiring, as he says, a *susceptibility* to such impressions, and hence he repels the objection derived from the little effect produced by miracles on the generality of men:—the world was not fitted to receive them—it required the spirit of faith to do so.[2] This, he contends, was especially the case in the resurrection[3]; and he notices it as particularly exemplified in many of the other Gospel miracles. Indeed, in following out the details of the subsequent history, most of the miraculous narratives are given simply without comment in their literal sense, the general remarks at first made being supposed to apply sufficiently to them all without requiring a detailed reference. But in two

[1] P. 139. [2] P. 142. [3] P. 475.

special instances he offers remarks which require a more particular notice.

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He supports the assertion of the *miraculous incarnation* of Christ, on the express ground that the supposition of the merely human birth (as held by the rationalists) would be *revolting to every religious feeling;* — an argument which, however true in point of fact, simply resolves itself into viewing the whole in accordance with devotional sentiment, not by the rules of historical criticism. If the acceptance of the Gospel narrative be fairly placed on this ground, there is an end of all objection or discussion. But this is to ignore the appeal to positive historical evidence so much insisted on by the orthodox school.

Again, when referring to the miracles of *raising the dead,* the author makes a very peculiar and important remark, which shall be simply left to the consideration of the reader. After discussing the question of the naturalistic explanation by supposing suspended animation or the like, he adds, — "In "regard to Christ's own words it is a fair question "whether he meant to distinguish closely between "apparent and real death, or whether he made use "of the term 'death' only in accordance with the

"popular usage. If it be presupposed that the dead "were restored to earthly life after having entered "into another form of existence, into connection with "another world;—the idea of resurrection would be "dismal: but we have no right to form such a pre- "supposition in our blank ignorance of the laws "under which the new form of consciousness de- "velops itself in the soul after separation from the "body."[1]

When Neander asserts[2] that "Christianity can "only be explained as a supernatural principle," if this be meant, as seems to be implied, to include *physical miracles*, he manifestly begs the whole question at issue with the rationalists: what is affirmed by them is merely that the Gospel narrative *does* admit of a plausible or *possible* explanation without recurring to supernatural causes, as far as regards the recorded *physical* events. Now it is certainly no answer to such an allegation to say that if we *assume* the *supernatural* character of the manifestation generally, we must admit it in all the *subordinate* parts of the scheme.

Assumption of the supernatural principle.

[1] P. 162.

[2] P. 139.

Yet the author's entire view resolves itself into one, which, though not refuting rationalism, is practically accordant with the spirit of progressing opinion, in looking more to *spiritual* than to *intellectual* conviction: and eminently harmonises with the habitual views of the majority of believers in rather affirming miracles *on the ground* of *inspired authority*,—of religious associations and faith,—and regarding *too close and critical* a reference to *evidential argument* as misplaced, if not profane.

Miracles left unexplained.

But even taking the matter in an *intellectual* and *reasoning* point of view, we cannot but remark in conclusion one eminently just and sensible observation of Neander,—(which would in fact apply much more generally in such inquiries,) — when, — after throwing out some hints as to the spiritualised nature of the body of Christ after his resurrection,—supposed by some with a view to the physical belief in the ascension, — he adds, "*we deem it better to "acknowledge a problem unsolved than to give "attempts at solution on the one side or the other, "which will not satisfy a clear thinker.*"[1]

[1] Note, p. 485.

CONCLUSION.

General remarks or theories of miracles.

We have thus taken a somewhat extended survey of the several chief modes of viewing the miraculous narratives of the New Testament, which have been proposed in our times, with the express design of obviating the objections entertained on philosophical grounds; and, upon the whole, it will probably be the impression on the mind of the more cautious and dispassionate inquirer, that, although each of these methods considered in itself may be allowed to include much which is valuable, and to suggest some reasonable and probable grounds of explanation in particular cases, — yet, as embracing the whole range of the inquiry none of them will appear perfectly satisfactory.

We may fully admit that the application of a strict and scrutinising criticism to the question maintained as historical, is fair and legitimate; we may reject the restrictions which a narrow dogmatism would impose, and determine to examine the matter in the most perfectly free and unprejudiced spirit, and by

the aid of sound philosophical principles. But even upon such grounds, on a close examination of the solutions suggested, it would seem that upon the whole the attempt at explanation is surrounded by difficulties nearly as great as those proposed to be overcome. However readily some few cases may be elucidated by one, and others by another, of the several principles advanced, yet when we proceed to such universal and complete systems of the whole of the New Testament narrative, explained on *one* common principle, as either the "naturalistic," the "mythic," or any of the other hypotheses furnish,—the more cautious inquirer will be disposed to allow that such a superstructure is larger than the foundation will support.

Difficulties in all the theories.

In the difficulties attending the critical study of the documentary evidence, most candid inquirers will concur:—they will admit that minute evidential discussions of the miracles are vain. In no cases have we really data for such examination: we cannot recall the conditions or cross-question the witnesses. In many cases no such attestation is claimed;—and in others the demands of strict criticism are little borne out by the documentary testimony. Indeed

some of the ancient Fathers of the Church have made admissions which may appear startling to modern biblicists, that there are many things in the Sacred narrative which cannot be accepted as literal and historical facts; and for which they would consequently seek a figurative interpretation.[1]

Faith rejects criticism.

Even the most earnest believers usually evince the greatest repugnance to examine the Gospel narratives critically, as if mere dry chronicles of matter of fact. They look at them in a different and a spiritualised light. They more especially always aver that miracles and the narratives of them are to be regarded as exceptional cases, and not to be criticised like ordinary events or ordinary histories: they contend that the Gospels ought to be always interpreted with respect to their *inspired* character, and that thus all critical difficulties become insignificant in amount when the whole is regarded and accepted

[1] Thus, *e. g.*, "Historia Scripturæ interdum interserit quædam vel "minus gesta, vel quæ omnino geri non possunt; interdum quæ "possunt geri nec tamen gesta sunt."—Origen, *De Princip.*, lib. iv.

"Multa sunt quæ non sinunt nos simplici sensu facta evangelica "suscipere, interpositis enim nonnullis rebus quæ ex natura humani "sensus sibi contraria sunt. Rationem quærere cœlestis intelligentiæ "admonemur."—Hilary, *In Matth.* lib. xx. § 2.

rather in the *spirit of doctrine* than in the *letter of history.*

Some of the most orthodox divines denounce "the "pride of unsanctified intellect irreverently intrud- "ing its criticisms into what ought to be veiled in "religious reserve:" by consequence the miracles and the records of them would be sheltered from criticism, and thus virtually removed from the province of history to be placed within the pale of religious *faith.* Thus these theologians seem *practically* to approach towards the view of miraculous narratives as compositions whose proper object is not so much the *events* they relate as the *doctrine* and *instruction* they embody, and thus approximate in principle to the mythic theory.

While philosophy is freely allowed its proper dominion in regulating general physical views, and criticism in sifting documentary evidence, faith is duly recognised in the acceptance of truths which, from their nature, could not be objects of scientific knowledge, and are not affected by the decisions or the doubts of criticism.

The literal sense of *physical* events impossible to cience cannot be essential to spiritual truth; nor

have contraventions to natural order any necessary connection with vital Christianity.

Broad principles paramount

The philosophic thinker, whatever view he takes of any, or all, of the rationalistic speculations, will perceive that the grand inductive principle of the immutable uniformity of natural causes, — the sole substantial ground for belief in a supreme moral cause, — must ever remain unassailed; and firmly grasping this broad principle on the one hand, and perceiving the essential spirituality of Christianity on the other, — he will repose on these convictions, and admit that the miraculous narratives of the Gospel may be received for the divine instruction they were designed to convey, without prejudice to the invariable laws of physiology, of gravitation, or of the constitution of matter.

ESSAY IV.

ON THEOLOGICAL VIEWS OF MIRACLES.

ON THEOLOGICAL VIEWS OF MIRACLES.

§ I. — MIRACLES OF THE CHURCH.

§ II. — GENERAL ARGUMENT.

ESSAY IV..

ON THEOLOGICAL VIEWS OF MIRACLES.

§ I. — MIRACLES OF THE CHURCH, MODERN AND ANCIENT.

THE various rationalistic and other systematic theories of the miracles of the Evangelists discussed in the last essay have met with little acceptance or even notice among English theologians, partly from causes of an obvious practical nature. But some appreciation of the primary difficulties which those theories were proposed to obviate can hardly have failed to force itself on the mind of any enlightened inquirer in the existing state of knowledge. Accordingly we may trace indirect indications of the advance of opinion and the progress of thought on this subject, even where the direct argument or object of theological writers might appear little in accordance with

it. A few instances will best illustrate these remarks.

Extraordinary events viewed as miracles.

It is a circumstance bearing much on the present question, that in some eminently religious minds we find a disposition to believe passing events,—especially those of a striking and extraordinary character,—to be *as properly miraculous* as those recounted in Scripture. Such a view, nevertheless, must tend directly to neutralise the distinction so much insisted on by systematic theologians, of regarding the latter as essentially special interventions for the attestation of revelation: while it must be admitted that a *very* high function and privilege is thus conceded to faith, in enabling it to elevate any extraordinary event into a Divine intervention. And this we must suppose to apply as much in past times as in the present: so that we fall back on the question of real interruption generally.

At all events we may take as a remarkably suggestive declaration, the following passage from a very eminent divine:—"Whoso will not recognise "the finger of God in His providential cures will not "see it in His miraculous. . . . . When men had "explained away, as the mere effects of imagination,

"cures, in modern times, out of the wonted order "of God's providence, which, though no confirmation "of a religious system, seem to have been personal "rewards to strong personal faith, they were ready "to apply the same principle to many of the mira- "cles of the Gospel: when they had ceased to see "in *lunatics* the power permitted to *evil spirits*, "they were prepared, and did, as soon as it was "suggested, deny it in the *demoniacs* of the New "Testament."[1]

Again: "Whoso lifteth not up the earthly to the "heavenly, will bring down the heavenly to the "earthly. 'Homer (says even a heathen) trans- "ferred human things to the Gods: would he had "rather things divine to man!' (Cic. Tusc. i. 26.)"[2]

If it should be objected, these are the opinions of a limited and peculiar theological school, we can refer to many divines of very different views, both of the present and of past times, who have upheld miracles as properly an attribute of the Christian Church in all ages alike, however occasionally

[1] Dr. Pusey, Sermon on 5th of Nov. 1837, p. 3.

[2] Ibid. p. 4.

in abeyance, or the power not exercised from want of faith; among these are Dr. Barrow[1], Archbishop Tillotson[2], and Grotius[3]: while in recent times in reference to some alleged miracles, especially those believed to have been wrought in Scotland, and among the followers of Mr. Irving, there is a published discourse of the Rev. H. M'Neile[4] in which the same doctrine is unequivocally maintained.

Instance of a modern miracle.

But we can adduce a more remarkable case of an alleged miracle in our own days, which some years ago excited considerable notice and discussion. The whole nature of that discussion is instructive, as exhibiting the actual condition of thought and character of the reasoning, by which even thinking and eminently religious men are guided in their entire view and estimate of miraculous evidence: the more distinctly marked because in this case there existed no dispute on points of testimony or evidence. The *bare apparent facts* were fully admitted and undis-

[1] Works, vol. iv. p. 467. ed. 1818.

[2] Works, vol. x. p. 230.

[3] On Mark xvi. 17.

[4] Published in "The Preacher," 1830. See "Documents on the Case of Miss Fancourt," p. 68. 1831.

puted on either side. The whole case as to the mere facts, was simply that, a young lady who for some years had suffered severely under what was pronounced a spinal disorder affecting the hip-joint,—received a very sudden and complete cure.

But while the *mere apparent fact* was not and could not be questioned by any of the parties concerned, the most opposite opinions were entertained in respect to the *nature* and *cause* of the event. Some viewed it as an instance of peculiar action on the nervous system, or ascribed it to other agencies of a physiological kind,—while others, under the influence of religious views, affirmed the cure to be due solely to the efficacy of prayer, and to be truly and properly miraculous.

Two eminent divines of the Established Church, the Rev. T. Boys and the Rev. Dr. S. Maitland, took the case and argued strenuously in favour of this miraculous view.[1] Dr. Maitland especially referred to distinguished medical authorities who pronounced

[1] The most condensed view of the arguments on either side will be found in a small volume entitled "Eruvin; or, Miscellaneous Essays." by the Rev. S. Maitland, D.D., &c., London, 1850, Second Edition, Essay X., where the other authorities are referred to.

their opinion "that such a disorder should be rec-"tified and reduced by excitement was beyond all "belief and contrary to experience."[1]

That a belief in the miraculous nature of the case should be confined to a few persons of strong religious views—and that the great majority of those who inquired into it should have held a contrary opinion, is what we should be prepared to expect. But it may be more a matter of surprise that the *sceptical* view should have been warmly taken up by that considerable section of the *religious* world of professed evangelical principles, whose organ is "The Christian Observer," and was advocated both in that journal and in a separate pamphlet by the editor, dedicated to the late Bishop of London, and approved, as he tells us, by numerous communications, "lay, clerical, medical, and even episcopal," while he avows that a "disbelief in alleged modern miracles is what "he sincerely thought (till the late Scotch mira-"cles) was the opinion of every reasonable man "in Christendom."

[1] Eruvin, p. 245.

Nature of the arguments on either side.

The point to which attention chiefly requires to be directed is the *nature* and *ground of the arguments* adopted on either side.

We may pass over as little to the purpose the various conditions and limitations laid down by one of the writers referred to, as the tests of true miracles, (and which are a kind of extension of those long ago proposed by Leslie and others,) since Dr. Maitland very justly points out their insufficiency, and adds, that to insist on them "would be a hard thrust at some of the *Scripture* miracles."[1]

Dr. Maitland's own view is altogether founded on the *assumption* that revelation and miracles are a declaration of another law of God besides that disclosed in nature.[2] But while he applies this to the Scripture miracles he expressly avows—"I cannot "grant to the infidel that a miracle is a thing con-"trary to nature;"[3]—and again, "How far an effect "may be a true miracle in the production of which "there is an intervention of a second cause, is a "question which I know not how to fathom."[4]

[1] Eruvin, p. 273.
[2] Ibid. p. 249.
[3] Ibid. p. 249.
[4] Ibid. p. 268.

Now we have only to remark, that in the present case, the *whole* question at issue was, whether the effect was or was not "contrary to nature;" and whether we could explain it or not by the admission of "second causes."[1]

Against the supernatural view, it was argued by some that in the present case the patient was brought into a high state of excitement, and her system predisposed to receive the influence administered. Dr. Maitland, on the other side, dwells on the numerous instances in the *Scripture* miracles where such excitement and predisposing causes manifestly existed, and which on the same principle might also thus be explained away. He concludes his essay by a strong caution against the dangers in which the received evidences of Christianity may be involved by such discussions, and suggests as the best remedy a recurrence to the powers conferred on bishops, by the councils of Noyon, Trent, and Cambray, to inquire

[1] It is worthy of remark that another eminent supporter of orthodoxy at the present day, while strongly denouncing what he calls "the shallow and crude assumption of the impossibility" of miracles, yet admits that "a miracle, in one sense, need not be necessarily a violation of the laws of nature: God may make use of instruments." (Mansel's "Bampton Lectures," p. 197.

into, and decide upon, questions of alleged miracles.[1]

On the other side, the views of the editor of the "Observer" and his friends are at least far more definite and summary. He says, "While we admit "the facts we utterly disclaim the inference that a "miracle has been wrought." .... "We must admit "any solution rather than a miracle,"— . . . "we "could not have anticipated that in the 19th cen- "tury we should have been constrained gravely to "argue that the cure of a young lady, however re- "markable in some of its circumstances, is not a "miraculous suspension of the laws by which the "Creator ordinarily governs the universe," .... "because it is more likely that we are ignorant than "that God has suspended his laws."[2]

Another point much dwelt upon by the editor and his correspondents is that there was no object answered, no attestation to doctrine concerned in this case. But the argument which seems to weigh most with them is the *danger* to the truth incurred

[1] Eruvin, p. 277.

[2] Quoted in "Eruvin," p. 245.

in the admission of such miraculous interposition, and this on two grounds:—first, a parallel has been hinted at between this instance and that of certain Romanist miracles:—hence the admission of the one might tend to strengthen the claims of the other,—a thing abhorrent to all Protestant convictions. Hence "it is safer to admit the facts but deny the theological inferences in both cases." Secondly, the infidel may be imagined to allege, "the miracle in this case is as good a miracle as any in Scripture:" nay, some of the correspondents have actually pointed out close analogies in this case with the circumstances of some of the Scripture miracles;—a comparison from which all pious minds would recoil.

Hence, the editor contents himself by strongly denying all real analogy between the cases as an admission equally dangerous to Protestantism in particular, as to belief in revelation in general.

In this case, however, the point most worthy of remark is the real and final ground of distinction on which the editor rests his whole case. He observes,—"The miracles recorded in Scripture we "separate by a wide line of distinction from all

"human narratives . . . . We best indicate the mi-
"racles of Scripture when we place between them
"and all uninspired narratives a broad line of de-
"marcation not to be transgressed."

Again;—we accept the former, "simply, because we are taught so in the inspired Volume."[1]

General remarks.

We have thus a remarkably instructive case of an alleged extraordinary fact, and of the very opposite varieties of opinion under which it is viewed. We have on either side the *fact* uncontested: but one religious party adoring it as a true *miracle*, at the same time admitting that a suspension of the laws of nature, or a denial of the operation of secondary causes is not *essentially* involved in the idea of a miracle;—another pre-eminently religious party as strenuously denying its *miraculous* character,—*because* it is not a miracle of *Scripture*. The one believing that miracles may occur every day though not necessarily supernatural;—the other, that no miracles can be believed except *on the authority of revelation*.

[1] Eruvin, p. 279.

Each of the theological parties in the controversy simply *viewed one and the same event through the medium of their respective prepossessions.* The learned and critical theologian found his view of the powers of the Christian Church supported by claiming the event as a true miracle: the ardent if not enthusiastic religionist of another school could allow no possible case of rivalry to the wonders of the finally closed canon of revelation. The one acknowledged miracles at all times characterising the Church: the other could admit none but the standing miracle of the inspiration of the Bible, and those involved in it.

An extraordinary event may then be firmly believed and admitted by disputants on both sides, and yet simply according to their preconceived ideas, one man will worship it as a special divine interposition, another *equally religious* will pass it by as merely an unexplained phenomenon.

State of the facts.

But after all, the most material point remains to be added:—In the opinion of the most distinguished medical men of the day, the apparent spinal or hip disease was due entirely to the deceptive effect of hysterical affection simulating the supposed disorder,

which was at once removed, when the hysteria was subdued.[1]

Thus in cases of extraordinary *cure* it may be well first to inquire into the reality of the *disease*:—

[1] In the pamphlet entitled "The Case of Miss Fancourt; a Collection of Documents, &c." by the Rev. S. C. Wilks, 1831,—which includes the papers printed in the "Christian Observer," and other matter,—it is remarkable that while the various *arguments* are stated, in full detail, tending to *refute* the miraculous view of the case, so little prominence should be given to the strongest fact for that conclusion—the *one important* document of the whole collection (p. 61)—a letter from Mr. Travers, the eminent surgeon, who was consulted on the case, and who, after some amount of doubt, at length explained it in the way just stated.

It is worthy of notice that all allusion to this view of the case is omitted by Dr. Maitland; and still more, that long after the publication of these documents he should have printed a second edition of his Essay (1850) without any change in this respect.

I am indebted to Sir Benjamin Brodie, P.R.S., for pointing out to me this view of the case, who, in a small volume ("Lectures on Local "Nervous Affections," &c., London, 1837) has collected a number of remarkable cases of the extraordinary effects of hysteria in producing a variety of symptoms undistinguishable from those which would arise from real local injury or disease.

Among these he mentions simply:—"In the 'Christian Observer' "for November, 1830, we find the recorded case of Miss Fancourt, who "had long been unable to move in consequence of what was evidently "an hysterical affection simulating disease of the hip-joint, and was "supposed to have been miraculously cured under the influence of the "prayers of her spiritual adviser,—leaving her couch at once, and "walking down stairs to supper, to the astonishment of her family." (p. 87.)

thus a volume of controversial *argument may* be based on a mere delusion as to *the fact.*

Miracles of the Port Royal.

The celebrated miracles of the Port Royal afford a good example of the force of strong religious belief in investing extraordinary facts with a miraculous character. The numerous cases of wonderful cures effected by the touch of a thorn asserted to be from the crown of Christ;—those wrought at the tomb of the Abbé Paris,—and others equally well known, hardly require to be enumerated. We have only here to remark with what zeal these marvels, all in the hands of the Jansenists, were disputed and disparaged by their bitter enemies the Jesuits and Molinists. Yet they were wholly unable to disprove the *facts*, and finding the *evidence* unassailable, were driven to have recourse to the assertion of demoniacal influence. Again, it is curious to remark how completely the same argument of *parallelism* with the Scripture miracles above hinted at pervades the various discussions of these wonders, especially the celebrated "Recueil des Miracles de l'Abbé Paris."

Among Protestant writers these miracles have been generally rejected and discredited, because being

papistical they were of course incapable of being true: even though of Jansenist (or semi-Protestant) tendency, it would be wrong for a moment to countenance them. In the strength of this assumption Middleton[1] takes his stand against the assertors of the older ecclesiastical miracles, and thinks it amply sufficient to challenge them to produce any marvels of the primitive Church equally well supported, and to assign any reason for upholding the primitive, while they (of course) deny the Port Royal miracles.[2]

The ancient ecclesiastical miracles.

If, from the sceptical age in which we live, we glance backwards to past times, we find an increasing belief in miraculous occurrences, through the mediæval period, up to the earlier ages of the Christian Church, attested by the statements of a succession of ecclesiastical writers with respect to which very various opinions have been entertained; and it becomes a point of the highest interest to examine

[1] Free Inquiry into Miraculous Powers, &c., before referred to.

[2] Perhaps the most remarkable confession of the difficulties of the subject of the Port Royal miracles is to be found in an elaborate article in the "Edinburgh Review" (vol. lxxiii.), ascribed to a very eminent writer, where (especially at p. 340) it will be seen how completely irresistible he finds the evidence of the *facts*, and to what an extent the resulting perplexity carries him in seeking a solution.

these narratives with special reference to the light in which they may be, and have been viewed, whether by the advance of philosophical criticism on the one hand, or on the other, under the influence of that veneration for ecclesiastical antiquity which invests them with so different a character, and which has become so prevalent at the present day.

The ecclesiastical miracles differently viewed.

The claim to the possession of miraculous gifts and powers on the part of a long and uninterrupted succession of saints and eminent upholders of the Christian faith, — or rather, perhaps, as generally vested in the collective body of the Church, has been always insisted on in its full extent and integrity by the Romanists. But it has been also upheld with scarcely less zeal, though possibly with some modification in extent, by many divines of the reformed Church.

Rejected by most Protestants.

It is true the majority of modern Protestants have been little disposed to credit these miraculous histories; and at the present day the prevailing disbelief perhaps may too unsuspiciously repose on the authority of some eminent critical writers who have cast at least a general shade of doubt over them; and thus, perhaps, the very nature of these alleged ma-

nifestations of Divine power is comparatively little known. Yet many are acquainted, for example, with the miracles which attended the discovery of the true cross by the Empress Helena;—and the supernatural multiplication of the wood of which it was composed, until it became a common saying that there was enough of it in Europe to build a first-rate ship, as well as of the miraculous effects produced by the touch of it;—some again may have heard of St. Martin wandering in a forest when a furious storm brought down a large tree, which was in the act of falling directly on the saint's head,—but he made the sign of the cross, and the tree was whirled aloft and fell at some distance;—of a priest, outwardly orthodox, but inwardly tainted with the heresy of Arius, who was celebrating the Eucharist, when on performing the consecration of the elements the bread was instantly transformed into a cinder;—as well as of the temptation with which St. Anthony was assailed by the Devil in his solitude.

A few instances.

These are a very few examples of the long catalogues of recorded wonders which, however, once made subjects of incredulity, and even ridicule, are

among those which have been in our own times particularly dwelt upon and discussed by Anglican divines as avowedly to be placed on the *same general ground* and *level* of credibility with narratives which most Protestants have been accustomed to regard in a very different light.

Upheld by Catholicists, as connected with infallibility.

With the real and consistent Romanists indeed there is a reason and a coherence in the belief awarded to all these prodigies. The infallible character and supernatural authority of the Catholic Church of course invests all these miracles ancient or modern alike,—from those of the Bible in one continuous series, through those of the early Fathers, St. Martin, St. Hilarion, and St. Gregory, down to those of the Holy Thorn, and the Abbé Paris, the "Addolorata," and "Estatica," and the winking Madonna, of recent times, with the same universal attribute of reality and divinity: even if it be allowed that here or there an alleged instance has not been sufficiently authenticated, or has not received the due stamp of formal authority.

The most striking representation of the whole subject in modern times has, perhaps, been that given in the very acute and remarkable Essay pub-

lished by Dr. J. Newman[1] *before* his conversion to the only faith which openly and unreservedly supports its claim to the possession of these miraculous powers,—a publication which attracted much attention, and presented the subject in a point of view naturally startling to Protestant apprehensions, by upholding the continued dispensation of these powers to the Church, with whatever lesser deductions or exceptions from critical objections, in particular instances, yet in such a way as to allow of no essential distinction in nature and credibility between those of one age and of another: and expressly contending that though the miracles of the ecclesiastical historians may in some respects differ in character from those of Scripture, yet that in general they rest on no other grounds of probability or reason than those of the Bible. The author criticises the arguments of Douglas, Middleton, and others, against the ecclesiastical miracles, as being precisely parallel with that of Hume against those of the New Testament, and as being even *less* consistent and

Parallel with Scripture miracles.

[1] See "An Essay on the Miracles recorded in Ecclesiastical History," by the Rev. J. H. Newman: Oxford, 1843.

urged with *less* reason.[1] He afterwards observes,—"those who have condemned the miracles of the "Church by such a rule have before now included "in their condemnation the very notion of a miracle "altogether."[2]

And again, when the critical writers referred to, ascribe the ecclesiastical miracles either to imposture or delusion, or natural causes ill understood, or allege that the belief in them originated out of the vague language and exaggerated statements of traditional rumour, of popular legends, or theological myths, the suggestion is all along made—why are not similar rationalistic explanations equally applicable to the Scripture miraculous narratives?[3] while referring to the systematic distinctions of the "evidential" writers, the author expressly contends that very few of the Scripture miracles really fulfil the precise tests laid down by Leslie, Lyttleton, Douglas, and others, whose arguments he discards as altogether unsatisfactory.[4]

We may best illustrate these remarks by a few instances in the author's own words:—"There is

[1] Newman's "Essay," p. 20.
[2] Ibid. p. 54.
[3] Ibid. p. 86 et seq.
[4] Ibid. p. 107.

"not a more startling, yet a more ordinary gift in "the history of the first ages of the Church than the "power of exorcism; while at the same time it is "open to much suspicion, both from the comparative "facility of imposture and the intrinsic strangeness "of the doctrine it inculcates. Yet here Scripture "has anticipated the Church in all respects; even "going the length of relating the possession of brute "animals, which appears so extravagant when intro-"duced, as instanced above, in the life of Hilarion "by St. Jerome. Again, we have a prototype of the "miracles wrought by relics in the resurrection of "the corpse which touched Elisha's bones,—a work "of Divine power, which, whether considered in its "appalling greatness, the absence of apparent object, "and the means through which it was accomplished, "we should think incredible, with the now prevail-"ing notions of miraculous agency, were we not "familiar with it. Similar precedents for a super-"natural presence in things inanimate are found in "the miracles wrought by the touch of our Saviour's "garments, and by the handkerchiefs and aprons "which had been applied to St. Peter's body; not

"to insist on what is told us about St. Peter's "shadow."[1]

"Elijah's mantle is another instance of a relic "endued with miraculous power. Again, the mul- "tiplication of the wood of the cross (the fact of "which is not here determined, but must depend "on the testimony and other evidence producible) is "but parallel to Elisha's multiplication of the oil "and of the bread and barley, and our Lord's mul- "tiplication of the loaves and fishes. Again, the "account of the consecrated bread becoming a cinder "in unworthy hands, is not so strange as the very "first miracle wrought by Moses, the first miracle "for evidence recorded in Scripture, when his rod "became a serpent and then a rod again; nor stranger "than our Lord's first miracle, when water was turned "into wine. When the tree was falling upon St. "Martin, he is said to have caused it to whirl round "and fall elsewhere by the sign of the cross: is this "more startling than Elisha's causing the iron "axe-head to swim by throwing a stick into the "water?"[2]

[1] Newman's Essay, p. 57.

[2] Ibid. p. 58.

"It is objected that the ecclesiastical miracles are "not distinct and unsuspicious enough to be true "ones, but admit of being plausibly attributed to "fraud, collusion, or misstatement in narrators; yet "in like manner St. Matthew tells us that the Jews "persisted in maintaining that the disciples had "stolen away our Lord's body, and He did not show "Himself, when risen, to the Jews; and various other "objections, to which it is painful to do more than "allude, have been made to the other parts of the "sacred narrative. It is objected, that St. Gregory's, "St. Martin's or St. Hilarion's miracles were not be- "lieved when first formally published to the world "by Nyssen, Sulpicius, and St. Jerome; but it must "be remembered that Gibbon observes scoffingly, "that 'the contemporaries of Moses and Joshua be- "held with careless indifference the most amazing "miracles;' that even an Apostle who had attended "our Lord through His ministry did not believe his "brethren's report of His resurrection, and that St. "Paul's supernatural power of punishing offenders "was doubted at Corinth by the very parties who "had seen his miracles and been his converts."[1]

[1] Newman's Essay, p. 58.

"The Scripture miracles may be distributed into "the Mosaic, the prophetical, and the evangelical; "of which the first are mainly of a judicial and re- "tributive character, and wrought on a large field; "the last are miracles of mercy, and the intermediate "are more or less of a romantic or poetical cast."[1]

"As the prophetical miracles in a great measure "belong to the schools of Elijah and Elisha, so the "ecclesiastical have a special connection with the "ascetics and solitaries of the orders or families of "which they were, patriarchs, with St. Anthony, St. "Martin, and St. Benedict, and other great con- "fessors or reformers, who are the antitypes of the "prophets. Moreover, much might be said con- "cerning the romantic character of the prophetical "miracles. Those of Elisha in particular are related, "not as parts of the history, but rather as his 'acta,' "with a profusion and variety very like the style of "writing which offends us in the miraculous narra- "tives of ecclesiastical authors."[2]

"Or, take again the history of Samson; what a "mysterious wildness and eccentricity is impressed

[1] Newman's Essay, p. 59.

[2] Ibid. p. 60.

"upon it, upon the miracles which occur in it, "and upon its highly favoured though wayward "subject."[1]

In another work, in precisely the same spirit, the temptation of St. Anthony is referred to as "not unworthy to be compared with that of our Lord."[2]

Other writers of the same school dwell at large on instances of the Scripture miracles, and then on cases exactly parallel in ecclesiastical tradition, or in the Apocrypha, which are often dismissed as legendary or superstitious,—and demand why are the one class to be rejected or explained away and not the other?[3]

Again, they allege many cases in the Martyrologies in which circumstances are narrated, and mystical explanations made of them exactly parallel,—as they represent them,—*e. g.* to the appearance of the "water and the blood" at the Crucifixion, and St. John's comment upon it[4],—and ask why are the former disregarded as fanciful and incredible, while the latter are held sacred?

[1] Newman's Essay, p. 60.

[2] The Church of the Fathers, p. 369.

[3] Tracts for the Times, No. 85, p. 87.

[4] Ibid. p. 93.

It would be needless to go into more instances: we will merely remark that such modes of viewing and applying the ecclesiastical miracles — such avowed or implied inferences and comparisons — cannot but excite surprise among Protestants, and perhaps even disgust and offence in many minds accustomed to regard the matter in so different a light. But to those who look at the case in a reasoning point of view, the remarkable turn thus given to the argument, may suggest many reflections bearing on the entire grounds of the belief in miracles. We will merely here observe that an argument from consistency and parallelism may often tell as much on one side as on the other.[1]

[1] Without pretending here to go into the details of testimony on this most difficult and much agitated question, it may be proper to refer to one or two of the chief authorities cited.

The testimony of Irenæus (about A. D. 200) is as follows: — "Whence "also in His name, as many as are His true disciples, having received "from Him grace for the salvation and benefit of all the rest, do these "things, as each of them has received of Him the gift. For some cast "out demons truly and effectually; — so that they who are freed from "these evil spirits often embrace the faith and continue in the Church: "others are gifted with prescience of the future, with visions, and pro-"phetical predictions: others heal the sick by imposition of hands, and "restore them to their former health: even the dead oftentimes (as we "have before said) are raised up, and afterwards remain with us for

As to the actual evidence, unless we reject the testimony of the early Fathers altogether, even on questions of fact, we must believe that the Christian missionaries, through at least some of the earlier centuries, ejected evil spirits, healed the sick, and raised the dead: the same assertions continue to be made by subsequent ecclesiastical writers, and invested with increasing characters of the marvellous, in one unbroken chain down to later ages; and the question,—if we admit these claims for the first few centuries, *where can we limit them?*—has been at once the triumphant boast of the Catholic writers and the anxious and perplexing inquiry of the Protestant. We need not allude to the volumes of discussion by which, after all, few at the present day feel that the difficulties of the subject are wholly removed.

Evidence for the ecclesiastical miracles.

"many years. What should I say more? It would be impossible "to enumerate all the gifts which the Church throughout the whole "world receives from God in the name of Jesus Christ, and daily exer- "cises for the benefit of the Gentiles." (Irenæus, "Adv. Hæret." ii. 57; see also ibid. 28, 32.)

Other testimonies are those of Origen "Contra Celsum," iii. 24; xiii. 420; Justin "Apol." i. 45; ii. 6; Tertullian "Apol." § 23, 37, 43, and in several of his other works.

Critical objections.

The arguments of theologians and the attestations of the Fathers and ecclesiastical historians have been subjected to the searching criticisms of Middleton, Jortin, Gibbon, Douglas, and others. These criticisms and allegations, on either side, it would be impossible here to discuss in detail. But the more the whole case is considered, the more, it must be confessed, it appears surrounded by difficulties, from which none of these discussions have fully relieved it.

Prepossessions for or against.

If indeed we are to be guided merely by theological prepossessions on one side or the other, it is easy to decide the question; to uphold all the marvels alike as Divine manifestations, with Dr. J. Newman on the one hand, or, on the other, to pronounce, with Dr. Jortin, that "we may as well believe, on the autho- "rity of Æsop or Phædrus, that the fox and the cat "held a dialogue together in Greek or in Latin."[1] The difficulty is to lay down a rule or a principle.

Difficulties on either side.

When we reflect on the serious difficulties involved on either hand, whether in accepting or in rejecting the statements of the ecclesiastical miracles,—it can hardly be considered surprising that even acute

[1] Remarks on Ecc. Hist. ii 217

thinkers with deep religious sympathies should have believed that those difficulties and embarrassments were only capable of being avoided by decrying evidence altogether, and resting their belief in a simple acknowledgment of the entire supernatural attributes, and consequent infallible character, of the Church,—one and the same throughout all ages,—and thus honestly and conscientiously seeking the solution of all perplexities in an implicit faith and prostrate submission to the one unchanged, unreformed Church, which has uniformly preserved the integrity of her claims, unbroken and unimpeachable, from the first age down to the present.

Romanist view of the case.

Thus the eminent writer before quoted has but consistently followed up his former views since his reception into the Roman Catholic Church.

Dr. J. Newman (in his celebrated Birmingham lectures)[1], dwells at large on the miracles of the Church, asserting in the strongest terms his own sincere and entire belief, even in the most apparently extravagant of them, and arguing expressly against the incon-

[1] Lectures on the present position of Catholics, &c. By J. H. Newman DD., 1851. See especially Lecture vii.

sistency of those who reject them as *incredible*, while they yet believe the infinitely greater and most transcendent miracle of all, the Incarnation.

Belief consistent.

So long as the infallible divinity of the Church is maintained, it appears clear that the one class of miracles must be *consistently* placed on exactly the same level with the other.[1] And as to the apparent unworthiness or puerility of some of the marvels, it ought to be viewed (as in all such cases) with a reference to the capacities of those to whom they were addressed. What to cold reasoning Protestants in England may appear a very clumsy imposture or childish delusion, may to the ignorant but ardent devotion of the peasant of Italy or the Tyrol seem the most glorious or affecting testimony to the Divine truth of his faith and the authority of his Church; and in past ages, when the belief in the supernatural was universal, there was of course no difficulty in the admission of any marvels *as such*.

Conse-quences from the

The express grounds on which the continuance of miraculous powers has been maintained is the as-

[1] Some Roman Catholic writers draw distinctions, and maintain that *all* miracles are not equally *articles of faith*. Mr. Butler, in his reply to Southey, restricts to this class the Bible miracles.

sumption of the general supernatural character of the Church, as a continuous Divine institution, to which the same character and claims attach equally in all ages. It would thus follow, that whatever is handed down as of a supernatural kind in connection with it has, in fact, no more distinct authority, and is entitled to no more *peculiar* respect, in one age than in another, at the earliest epoch than in modern times. The character of the later miraculous pretensions thus implicates that of the earlier, and even of the first age; and the records of them all (as to their general claims) are placed on the same level. Thus it would clearly follow that there was no *peculiar* evidence derived from special interposition in the *first* age more than in later times, and that the original promulgation of the Gospel was not at all more properly divine, as being substantiated by any more distinguishing supernatural characteristics, than the ministrations and teachings of the Church in subsequent ages.[1]

ecclesiastical miracles.

[1] The argument of Middleton tends to the dilemma that either the miracles of the Church establish the authority of the Fathers and Councils, and thence of Romanism, or that ecclesiastical antiquity must be rejected altogether. It was this dilemma which led Gibbon in the earlier part of his life to embrace Romanism.

(Views of writers on the evidences

Such a view (it is clear) is eminently consistent with the claims of the unreformed and infallible Church. But the difficulty is to reconcile such admissions with the professed principles of Protestantism. Nevertheless, in former times the continuance of supernatural powers, however occasionally dormant in the Christian Church, has been upheld by some eminent Protestant divines, as was before remarked; yet they do not seem to have observed how obviously this admission might recoil on the received external evidences of revelation. But in later times the difficulties of the question have been better appreciated. Campbell and others have consistently contended, that these miracles, if admitted, must be accepted as the attestation of continued new revelations — further developments, in short, of Christianity: and, by necessary consequence, setting aside the finality of the New Testament.

) of sceptics.

On the other side it has been a common insinuation that as all early histories have their legends and prodigies, and all religions their miracles, their Divine incarnations and apotheoses, so the religions exhibited in the Bible have theirs: and those who extend precisely the same comparison to the subsequent develop-

ment of Christianity; and to the miraculous claims and marvellous legends of the Church, which they contend cannot be really distinguished from those of Scripture, they place all such supernatural narratives on the same level, and make the evidences in the one case no better than in the other.

Critical distinctions in ecclesiastical miracles.

Hence, to draw a broad line of demarcation, has been felt to be imperatively necessary, and the tendency of those views which amalgamate and identify the one class of miracles and marvels with the other becomes the more obviously conspicuous. Thus, on both grounds, the majority of Protestant writers (with whatever difference of opinion as to the precise period) have usually contended for some limit in point of *time*, beyond which miracles cease to be *credible*.[1] But in order to draw such a line they

[1] Dodwell ("Dissert. in Iren." ii. § 55) maintains miracles till the conversion of Constantine (A.D. 312).

Whiston till A.D. 381; and, as he characteristically observes, "when "the Church became Athanasian, Antichristian, and Popish, they "ceased, and the Devil lent his own cheating and fatal power instead." ("Account of Dæmoniacs," p. 65.)

Waterland admitted some miracles in the 5th century. ("Misc. Tracts," p. 173.)

Locke says, we must either "go no further than the Apostles' time, "or else not stop at Constantine." ("Third Lett. on Tol." ch. x. p. 269.)

necessarily have recourse to grounds of rationalising criticism, which they often apply with no sparing hand. Some reject all miracles except those of the New Testament. Others place the limit more or less early or late, but with little apparent consistency of principle.

Views of Dean Lyall.

Dean Lyall has extensively and forcibly treated this subject; — and in connection with some remarks on Gibbon's reference to the alleged miracles of the Church as among the causes of the propagation of Christianity, he thus delivers his opinion: — "The "third cause is the pretension of the first Christians "to miraculous gifts. But, supposing the miracles "ascribed to Christ to have been really wrought, and "that the power of working them was extended to "the Apostles, surely it need not make much impres- "sion on the mind of any man, who knows what "human nature is, to be told that miracle-mongers "continued to infest the Church long after all mira- "culous gifts had really been withdrawn. Such an "effect was the natural consequence of a belief in "the miracles related of Christ and his Apostles. All "it proves is, that the minds of men were excited, "and, as has happened in other cases, that designing "men took advantage of the fact. 'Prodigia eo anno

"multa nunciata sunt,' says Livy, speaking of the "second Punic war, 'quæ quo magis credebant sim- "plices et religiosi homines, eo etiam plura nuntiaban- "tur.' I can only say, as for myself, that I do not "believe in the continuance of miraculous powers in "the Church from the period when Jerusalem was de- "stroyed. General assertions there are in allegation of "miraculous gifts more than enough; but it is observ- "able that none of the Fathers speak of such gifts as "possessed by themselves, however credulous they may "seem in the instance of others. . . . . The belief in "lying wonders, though naturally and reasonably to "be accounted for, was the opprobrium of the early "Church; but, instead of reckoning this belief, as "Gibbon does, among the causes of the success "of Christianity, my persuasion is, that, on the "contrary, it was among the impediments which "it had to overcome, just as in the present day "the similar pretensions of the Church of Rome "are the causes of much of the infidelity which is "now in the world. In the earlier ages of the "Church, such miracles as we read of in ecclesiastical "writers, even if they had been true, would not have "advanced the cause of Christianity; for there were "none, either in or out of the Church, who reasoned

"upon this evidence as we do; even the vulgar in "those days looked upon them simply as the effects "of magical arts, or otherwise of spiritual agency, "good or bad; and we cannot doubt that wise and "learned men, instead of being attracted by such "arguments, must have been often kept away."[1]

Difficulties involved.

Nothing can be more true than some of the allegations and grounds of reasoning here appealed to; but it may be questioned whether the same arguments might not apply further than was probably intended. Again: why the period of miracles must be limited to the fall of Jerusalem is by no means apparent. But chiefly it must be remarked, that this summary rejection of the appeal to miracles in the early Church —which even the historian of "The Decline and Fall" seems disposed to admit as influencing the convictions of the converts — tends directly to set aside the argument, commonly so much dwelt upon, of the *necessity* of miracles for the propagation of the Gospel.

Miraculous propagation of Christianity.

For there was clearly no very wide-spread or very numerous accession of converts during the age of

[1] Propædia Prophetica, Diss. I. p. 348.

the New Testament miracles: it was not till a later period that the great and overflowing extension and prevalence of Christianity in all places and among all ranks occurred. It is therefore difficult to see how it can be maintained that the universal extension of Christianity was effected by *outward* supernatural means, by those who discard the miraculous claims of the early Church.

Testimonies of the Fathers criticised.

Again, by others, the confession of Chrysostom (A.D. 380) has been appealed to—"argue not that "miracles did not happen *then* because they *do not* "*happen now*"[1]—as decisive of the question in his age.

The later miraculous narratives of Gregory and others, as well as those of Eusebius, are criticised as of a legendary and suspicious character: and it is urged the earlier statements of Origen and Tertullian, of Justin and Irenæus, are indefinite in their tenor, and in no case reported on the credit of eye-witnesses. While, going back still earlier, more remarkable is the fact that *not one of the Apostolic Fathers*—

[1] Hom. in 1 Cor. vi. 2; to the same effect also Augustine, "De Civ. Dei," xxii. 6.

neither Ignatius, nor Polycarp the disciple of St. John, nor Clement the fellow-labourer of St. Paul, *make the smallest reference to miracles as existing in their age.* For, — that Ignatius puts hypothetically the case of working miracles[1], that the 'Martyrology of Polycarp' (whose author and date are quite uncertain) details some prodigies attending his death, and that Clement appeals to the miracle, as he believed it to be, of the Phœnix[2], will perhaps hardly be regarded as exceptions. That the stream should thus be most defective nearest its source—the chain broken at its very commencement—remains to be accounted for.

Scepticism inconsistent.

But in admitting *any* process of searching criticism and sceptical exceptions applied to the documentary authority or origin and force of the *testimony* in support of the miraculous powers ascribed to the early Christian Church, others have felt the greatest difficulty, as it would seem to involve the admission of a similar right of uncompromising critical examination applying equally to the miracles of one age as of another. And if, regarding the question as merely

[1] Frag. ix.

[2] Παραδοξον σημειον, I. "Ad Cor." § 25.

one of historical fact, we are at liberty freely to canvass, to reject, or explain away as much or as little as may seem reasonable in the one case, they do not see the consistency of prohibiting such criticism in the other. Yet in fact those speculations of the Rationalistic school, which create so much offence in the minds of orthodox Protestants, proceed on no other principles than those which dictate their own critical rejection of the ecclesiastical miracles, and vindicate the disposition to regard them as mythical inventions on the one hand, or exaggerated versions of extraordinary natural events, on the other.

Various pleas adopted.

Some have, indeed, sought to avoid the difficulties of the case by maintaining the distinction that the ecclesiastical miracles were *not evidential*, but wrought only for the support and comfort of the Church under difficulties and persecutions.

Others, again, contend that they were only a species of marvels raised up as antagonistic to the heathen magical wonders, and appealed to as a triumph of *superior* power.[1]

Some, too, have explained the narratives of them

[1] See Neander, "Ecc. Hist." transl. i. 67, and Paley's "Evid." ii. 339.

as merely pious frauds for the support of the faith in a later age.: but the question naturally arises,—why does not all this apply equally in an earlier age, and to other cases, however consecrated by prescriptive belief?

Others have urged the consideration that these prodigies belong to an age when their production, or their introduction to public notice, was altogether in the hands of a *dominant hierarchy*, and that they were always such as favoured and supported its pretensions among the mass of willing, and for the most part ignorant, votaries of increasing credulity and superstition.

Dr. Arnold, while referring to this distinction, dwells still more emphatically on the total *want of combination of these external manifestations with the internal appeal to doctrine*, and thence argues that the mediæval miracles and those of the Gospel by no means "stand on the same ground."[1]

Such varied and contradictory views of the ecclesiastical miracles evince only the perplexity in which

[1] Lect. on Modern Hist. p. 133. This distinction is also dwelt upon by Dean Lyall, "Prop. Proph." 441.

the whole question is unavoidably involved,—unless taken up on far more comprehensive principles, whether on one side or the other, than most are willing to adopt.

Argument connected with the powers and functions of the Church.

But the subject is closely connected with other arguments of the same school of writers who support the ecclesiastical miracles, and is eminently elucidated by them.

These writers uphold continued supernatural influence in the Christian Church, of a less *sensible* kind, but not less *really* manifested in the *spiritual* powers and functions of its ministry, down to the present day; and the exercise of these functions is even placed in complete *parallelism* and *identity* with the Scripture miracles; an argument which at least may easily be understood as rather casting a reflected light upon *those* miracles. To illustrate this, a few extracts will suffice.

"Are miracles the only way in which a claim can "be recognised? Is a man the higher minister the "more miracles he does? Are we to honour those "who minister temporal miracles, and to be content "to eat and be filled with the loaves and fishes? "Are there no higher miracles than visible ones?

. . . . . "If Christ is with His ministers, according "to His promise, 'even to the end of the world,' so "that he that despiseth them despiseth Him, then, "though they do no miracles, they are in office as "great as Elisha. And if baptism be the cleansing "and quickening of the dead soul—to say nothing "of the Lord's Supper—they do work miracles. If "God's ministers are then only to be honoured when "we *see* that they work miracles, where is the place "for faith? Are we not under a dispensation of faith, "not of sight?" [1]

Again: it is asked, "Why is it so readily believed, that virtue went out from Christ," and yet denied in ordination from the hands of a bishop? Why are such powers admitted in the persons of the Apostles and not in the administration of the sacraments by priests ordained in succession from them? [2]

In another publication it is distinctly affirmed that "the change wrought by the consecration of the ele- "ments in the Holy Communion is as much a miracle "as the change of the wine in the marriage at "Cana." [3] While another eminent advocate of the

[1] Tracts for the Times, No. lxxxv. p. 95.
[2] Ibid. p. 90.
[3] British Critic, xxvii. p. 259.

same views argues that the "Spiritual, yet real, presence of Christ in the Eucharist" is no more incredible than His appearances after the resurrection, His passing through closed doors, or vanishing at Emmaus, or even than the ascension.

But in following out the same kind of comparison sometimes admissions of a more striking kind are made: thus it is alleged—"The Deluge will appear "to men of modern tempers more and more in- "credible the longer and more minutely it is dwelt "upon," and a similar remark is applied to the physical miracles recorded of Elisha, Jonah, and others.[1]

Again: it is asked, "Can we doubt but that the "account of Christ's *ascending* into heaven will not "be received by the science of the age, when it is "carefully considered what is implied in it? Where "is heaven? beyond all the stars? If so it would "take years for any natural body to get there. We "say with God all things are possible. But this age, "wise in its own eyes, has already decided the con- "trary in maintaining, as it does, that He who vir-

[1] Tracts for the Times, No. lxxxv. p. 93.

"tually annihilated the distance between earth and "heaven in His Son's ascension cannot annihilate it "in the celebration of the Holy Communion so as to "make us present with Him, though He be on God's "right hand in heaven."[1]

nferences rom these estimonies.

Such reasonings require little comment. They may be viewed under some diversity of aspect; but they readily admit an interpretation calculated to relieve the question of all critical difficulties, especially those of a philosophical kind,—by placing what have been commonly regarded as sensible and *physical* miracles *precisely* on *a level with* purely *spiritual* influences.

lystic iews of ie Fathers.

Nor, in connection with these references to a school which founds everything on the authority of the Fathers of the Church, can we fail to remember that it was on no other ground that Woolston (as before noticed)[2] long ago founded his rejection of the *historical* character of the Gospel narratives of miracles, and assigned to them that mythic origin, and allegorical interpretation, which Origen,

[1] Tracts for the Times, No. lxxxv. p. 97.

[2] See p. 335.

Hilary, and others distinctly sanction, and which was the germ and suggestion of the speculations of Strauss.

These views, to say the least, represent miracles in a sense very different from that in which the formal logic of the last century discussed them;—and possibly one not exempt from some reflection of the advancing light of philosophy which these writers nevertheless professedly disclaim. Yet it may be not without a reference to such ideas, that in the same school of theology from which these views emanated, the disparagement of the evidence of miracles has been carried out even to a more precise extent; as appears perhaps in the most striking manner from the direct testimony of an able writer, formerly a pupil of this school, as to the nature of the instruction once imparted in it.

Depreciation of evidences

"We began to follow him ['the great teacher'] "along the subtle reasonings with which he drew "away from under us the supports on which Pro- "testant Christianity had been content to rest its "weight. We allowed ourselves to see its contradic- "tions, to recognise the logical strength of the argu- "ments of Hume, to acknowledge that the old

"arguments of Campbell,—the Evidences of Paley,
"—were futile as the finger of a child on the
"spoke of an engine's driving wheel. Nay, more
"to examine the logic of unbelief with a kind of
"pleasure, as hitting our adversaries to the death,
"and never approaching us at all."[1]

consistent with traditional principle.

Such distinct avowals may perhaps appear startling to those who have not attentively considered the tendencies of the peculiar school from which they emanate in all their bearings; but they harmonise entirely with the principles involved in the very nature of that system,—which was in fact that of the ancient Fathers,—and which tend to disembarrass the subject of all *evidential* difficulties, by acknowledging the whole basis of belief to rest simply in *tradition* and *prescriptive authority*.

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[1] The Nemesis of Faith, p. 126.

Taking the subject in a more controversial light, the Chevalier Bunsen has observed of the Tractarian school: "Those who were *once* "their leaders *now* preach that historical Christianity must be given up "as a fable, if an infallible authority be not acknowledged declaring it "to be true." (Bunsen's "Hippolytus," &c. vol. i. Preface, p. xvi.)

By the last extract some light is perhaps thrown on a much earlier state of the case here represented, before the qualifying alternative had been adopted.

And in this depreciation of evidential reasoning, and recurrence to the merely *traditional* ground of all Christian testimonies, we cannot but perceive the reflection of the critical views of the Neological school. The Patristic theology, which places the marvellous legends and myths of the Church in exact parallelism with the miraculous narratives of the Bible, is but the counterpart of the Rationalistic, which reduces the Scripture narratives to the level of legend and myth.[1]

But it must in fairness be added, that what is here remarked is no imputation on the *reality* or *earnestness* of a religious belief founded on such a traditional basis. The spirit of faith,—so nearly

[1] We might adduce many other instances of this kind of parallelism, or even of a direct tendency to assimilation of views, between the Anglican theologians here referred to, and those of the rationalistic school:

For instance, the writers of the "Tracts for the Times," freely admit the Platonic origin of some of the Christian doctrines, as that of the "Logos" and other points; but vindicate the adoption of them as scattered relics of earlier Divine tradition. See "Tracts for the Times," No. lxxxv. p. 75.

Similar admissions are fully made by some of the Fathers: thus, in reference to the Incarnation, S. Jerome says:

"Sapientiæ principem non aliter [Platonistæ] arbitrantur, nisi de "partu virginis editum." (Jerome adv. Jovin. i. 26.)

allied to the æsthetic and imaginative faculties of our nature,—*may* be most fervently and sincerely associated with what is fabulous or mythical, or *may* attach itself to a high spiritual truth under the outward imagery of a marvellous narrative.

It has even been contended that mystery and parable are *more* truly congenial to the nature of faith than fact and history; which are rather subjects of reason and knowledge; far below the aspirations of the spiritual mind.

§ II. — GENERAL ARGUMENT DEDUCIBLE FROM THE BELIEF IN MIRACLES.

Reason and faith.

IT is the general appeal to a primary distinction in nature and function between *reason* and *faith*, — intellect and religious sense, — and the admission that what is a legitimate object of the one, *may* not even be recognisable by the other, — which seems to afford the most satisfactory solution of many of the difficulties in which we find ourselves involved in reference to the present question.

From what has preceded it appears that while the difficulties of miracles are fully seen, if not explicitly avowed by some theologians, the acceptance of them is regarded purely as a matter of religious faith and spiritual apprehension, not as a point of reason or a deduction of the intellect, — to which they admit it is even opposed. And thus this confession on the side of religion entirely concurs and harmonises with the verdict of philosophy, which, if it fail to recognise physical interruption, freely acknowledges spiritual

influence and the power of faith; and where its own dominion ends, cordially recognises the landmarks of the neighbour territory, and allows that what is not a subject for a problem may hold its place in a creed.

Evidential arguments.

In a past age, as we have already noticed, great stress was laid on certain precise "evidential" arguments, especially turning on inferences from miracles. The exclusive, or even principal, importance of this class of *proofs* has in later times been greatly called in question—even by orthodox theologians, who have evinced a disposition to recede much from formal arguments addressed to the intellect, and to prefer an appeal to spiritual conviction and religious sense.

It is now admitted that the strict "evidential" tests once exacted are little applicable to a great part of the Gospel narratives, especially in the earlier portion. Bishop Butler[1] long ago drew the distinction: "There are also *invisible* miracles, the incarnation of Christ, for instance," which are therefore wholly matters of faith: and Anglican theo-

[1] Analogy, Pt. II. ch. ii. p. 227, ed. 1807.

logians insist upon the *traditional* source of all our knowledge of the origin or authority of the Gospels as derived from the Fathers;—and maintain that evidence and reasoning are little congenial to the spirit of faith, which harmonises better with spiritual doctrine and submission to *divine* teaching: again, on quite an opposite side[1] it is observed that St. Paul, when he does enter on evidential discussion, dismisses it very slightly; his own *witness*[2] to the resurrection being merely to an appearance long after, the nature of which he does not even mention, but he nevertheless considers this attestation fully equal to that of the other Apostles: while it is contended all *real* conviction must be from within.

Appeal to faith.

Hume indeed expressly puts forward his argument against miracles on the plea that "it may serve "to confound those dangerous friends or disguised "enemies to the Christian religion, who have undertaken to defend it by the principles of human "reason. Our most holy religion is founded on "FAITH, *not on reason*: and it is a sure method of "exposing it to such a trial as it is by no means

[1] Phases of Faith, p. 181, 1st. ed.

[2] 1 Cor. xv. 8.

"fitted to endure."[1] If understood in accordance with the distinction between *physical* interruption and *spiritual* influence, this declaration would be eminently satisfactory: but it appears from the context of the passage (before cited[2]), that the author makes this very "faith" to which he refers, in itself something as supernatural, and contrary to reason as any of the miracles which he rejects. The declaration can thus only be regarded as designed in an insidious sense.

Yet if understood in the meaning just indicated, the appeal to faith entirely harmonises with the views of some of the most earnest advocates of revelation who have expressly maintained that "conversions not miracles are the real and abiding evidences of Christianity." And more reasoning inquirers have admitted that if the miracles of the Evangelists be regarded as adapted to the conceptions of the age to which they belong, still the internal evidence of Christianity, — its moral and spiritual appeals to the hearts and consciences of men, equally address themselves to more enlightened apprehensions in all ages.

[1] Essays, Vol. II. p. 136, ed. 1800.

[2] See before, p. 280.

External and internal evidence.

Among these advocates of Christianity who overlook, or do not at all appreciate, the consideration of the abstract question of physical credibility, many pursue the evidential argument, not indeed directly excluding miracles, but contending that their attestation ought always to be combined with, and ruled by, that of the internal evidence supplied by the nature of the doctrine inculcated: thus really placing belief on the paramount ground of *our moral and spiritual impressions* of religious truth.

This kind of argument has been dwelt upon by many approved theologians. But it has been perhaps most comprehensively considered by Pascal, who thus sums up the case:—"Il faut juger de la "doctrine par les miracles,—il faut juger des mi- "racles par la doctrine: la doctrine discerne les "miracles, et les miracles discernent la doctrine: "tout cela est vrai, mais cela ne se contredit pas." He then illustrates the point by the case of the Pharisees who decided on the one side that he who worked a cure on the Sabbath could not be from God; and the people who argued on the other "can a sinner open the eyes of the blind?"[1]

[1] Pensées, Par. II. Art. xvi. § 1.

It is probably only in connection with the same view that Pascal seems to go still further in disparagement of the evidential argument, when he observes: — "Je ne parle pas ici des miracles de "Moïse, de Jésus Christ, et des Apôtres, parcequ'ils " ne paraissent pas d'abord convaincans, et que je ne " veux mettre ici en évidence que tous les fondemens " de cette religion chrétienne, qui sont indubitables, " et qui ne peuvent être mis en doute par quelque " personne que ce soit."[1]

In other words, some other ground of conviction is appealed to: a miracle *as such* proves nothing, but is wholly overruled by the predisposing ideas and opinions of those to whom it is addressed.

Scepticism in the age of the Gospel

If we look to the actual representation of the New Testament, in an age when the belief in the supernatural was universal, we find, on the express testimony of the Gospels which recount the miracles, that the appeal to them was addressed in vain to many with whom it might have been supposed powerful; and in few instances produced any real conviction: even Nicodemus was but a half convert.

[1] Pensées, Par. II. Art. xvii. § 9.

The Pharisees did not at all *deny* the miracles of Christ, but set them down to the influence of *evil spirits.*[1] In that age it was not any doubt as to supernatural power as such, — it was the influence of their peculiar prepossessions on quite other points on which the different parties raised their arguments and drew their distinctions; and ascribed the work either to God or to Beelzebub, according to their predisposing impressions or foregone conclusions.

not evidence but conviction.

It is as dependent on the entire difference in habits of thought between those ages and the present, that we now look back to the narratives of the Gospel miracles. Even under then existing views, though accepted by properly disposed minds, they were rejected by others. It was not the mere external apparent event, but the moral and spiritual qualifications of the parties which formed the ground of real conviction. The miracles are represented as being to some a *sign* leading them onwards to a higher and purer faith, to others a stumbling block: the pillar of fire to the one, — the cloud to the other.

[1] On this point some striking testimonies will be found in Dean Lyall's "Propædia Prophetica," p. 438.

Nor was the appeal to miracles either exclusively or even principally relied on by Christ or His Apostles.[1] False prophets might give signs and wonders[2]: the evidence was nothing but as pointing to spiritual enlightenment: Christ dismisses in silence the *logic* of Nicodemus to turn instantly to the essential requirement of *spiritual* regeneration.[3]

Such was the spirit in which the appeal to miracles was regarded in former ages: little question of facts or evidence, still less any of higher reason, was entertained: conviction depended on quite other considerations.

Common belief without evidences.

And the slightest observation will convince us that this accords exactly with the view commonly recognised and admitted by the great mass of professing believers, who are guided in their reception of Christianity, not by evidential arguments, but simply either by the prepossessions of early education and received opinion, or by what is believed to be the influence of Divine grace: — miracles are admitted as a *part* of the Gospel, not as the *antecedent* or preliminary *proof* of it.

[1] John x. 38; xiv. 11. [2] Matt. xxiv. 24. [3] John iii. 2.

The vast majority of ordinary believers, when they hear any objection started against the miracles of the New Testament, will with one consent regard it, not as a critical difficulty *weakening the evidences*, but as a *profanation*, in questioning what is asserted by *inspired* authority; that is, they believe the miracles in *consequence* of the assumed inspiration, not as the *proofs of it*. They answer all objections by a quotation from Scripture,—"with God nothing is impossible."[1] Their argument is founded on the *previous belief* in inspiration,—which is a question of *faith*. Some argue for belief in miracles that creation is a miracle; but creation is solely the doctrine of revelation[2]: the argument, therefore, is still simply one of faith.

Miracles apart from revelation discredited

If we suppose the question put to the great majority even of more reasoning Protestant Christians,—whether they believe in the miracles asserted to have been wrought by the Emperor Vespasian or by Apollonius of Tyana, by monkish saints or modern priests,—they would unhesitatingly reject them; *because*,

[1] Luke i. 37.

[2] See above, p. 250.

they would say, these alleged wonders, however positively asserted by the narrators and firmly believed in their day, or among a particular communion, had either no connection with a religious revelation, or, if any, with a false and superstitious creed: that is, the popular belief in miracles is entirely governed, not by the question of historical evidence, but by the consideration of the religious faith with which they are connected. On this ground it is that while so many reject these alleged miracles of heathenism or of popery, they accept those of the Gospels. The supernatural event which would be discredited as a mere point of history, is invested with quite a different character when connected with doctrinal belief: though it would be regarded as incredible if stated nakedly in history by itself, it acquires credit and passes current from the force of association with the admitted and cherished creed, and as a part of the doctrine with which it stands connected.

And this view is confirmed and supported by the authority of eminent theologians.

"Miracles," says Dr. Arnold, "are the natural ac-
"companiment of the Christian revelation. . . . . .
"Miracles must not be allowed to overrule the

"Gospel; for it is only through our belief in the "Gospel that we accord our belief to them."[1]

And, even before his conversion to a religion of pure authority and infallibility, Dr. J. Newman had declared that "Miracles are rather truths to be believed on the authority of inspiration."[2]

General inference.

Thus, on every ground,—from the nature of the case, from the arguments of the learned, from the practical confessions of the unlearned, from the admissions of the orthodox and the controversies of the heterodox,—on the combined consideration of the remarks last made and the facts and authorities formerly cited,—we can only arrive at the conclusion that the belief in miracles, whether in ancient or modern times, has always been a point, *not* of *evidence* addressed to the *intellect*, but of *religious faith* impressed on the *spirit*. The mere fact was nothing: however well attested, it might be set aside; however fabulous, it might be accepted,—according to the predisposing religious persuasion of the parties. If a more philosophical survey tend to

[1] Lect. on Modern Hist. pp. 133, 137.

[2] Essay, &c. p. 107.

ignore suspensions of nature, as inconceivable to reason, the spirit of faith gives a different interpretation, and transfers miracles to the more congenial region of spiritual contemplation and Divine mystery.

CONCLUSION.

GENERAL RELATIONS OF CHRISTIAN FAITH AND PHYSICAL TRUTH.

Understood in its full extent, the grand idea of Cosmos, and the view of universal mind, at first enlarged upon, at once, on its positive side, subverts atheism, and on its negative, pantheism —"the poetry of atheism."[1] In its extension, it opens the door to faith; in its restriction, it cuts off visionary speculations of reason on matters beyond its province; and if it exclude interruptions to physical order in the material universe, it is fully consistent with the admission of spiritual mysteries in the invisible world.

Relations of Christianity to physical points no miraculo

The subject of *miracles* has been thus far dwelt upon as that in which, above all others, the claims of revelation seem to come into most immediate contact with physical considerations and the great truth of the order of nature.

[1] F. Newman, "Theism," p. 26.

But this topic, important as it is, is only one branch of a wider question which arises when we consider that the spiritual disclosures of the Christian revelation are in so many ways represented as more or less related to the external world; when spiritual and moral doctrines are at least expressed in terms derived from objects of sense, or the things of the heavenly and invisible world represented under some outward connection with visible objects and physical events.

Hence a few remarks on some of the principal cases of this kind, where difficulty may have arisen in the reception of Christian doctrines on *physical* grounds not directly referring to miracles, will properly close the present discussion.

Physical language of Scripture.

In general, no reflecting person who considers the peculiar circumstances under which any part of the Bible was written, or the objects for which it was obviously designed, will hesitate to admit that on all physical subjects the sacred writers[1] beyond question held the accepted doctrines of their age. No thinking reader for a moment imagines that they professed or

[1] See "Unity of Worlds," Essay II. § ii. p. 322, 2nd ed.

had attained the slightest advance in Astronomy, in Geology, in Physics, or in Physiology, beyond their cotemporaries. On these and the like topics, then, they of course simply used the current language, as they adopted the common belief of their day, and, even in religious applications, could only describe events, where they involved any reference to outward nature, in terms implying the ideas with which they and their hearers or readers were conversant. Indeed, even had it been otherwise, no other language could have been intelligible to those they addressed, and the representation must have failed in its object.

Physical contradictions in the Old Testamen

When more precise and circumstantial descriptions or narratives occur, as in certain instances, especially in the Old Testament, the case may present peculiar features requiring more distinct consideration, especially if regarded as compared with, or supposed addressed to, the apprehensions of the present age.

In the former Essays the most remarkable of such cases was fully considered, the contradiction to physical fact in the Mosaic cosmogony, to which other instances, such as the Deluge,—as well as many less prominent, in the narrative of the Hebrew Scriptures, might be added, and to which the same general re-

marks would apply so obviously as to render more particular discussion of them needless.

Physical difficulties in relation to Christianity.

But in regard to these cases of physical difficulty as affecting the *Old* Testament, a further *special* ground of argument was resorted to, viz. the *independent basis* on which *Christianity* stands, and the consequent *irrelevancy* of objections which might be valid against any part of the *Judaical* system or records, and yet not affect the claims of the *Gospel*.

Nevertheless, it may still be urged that we have not taken a complete or comprehensive view of the case. There may be, and in fact there are, numerous other cases of physical statements which seem more closely and directly to affect some points in Christianity in which similar difficulties occur We must proceed to consider a few instances.

The Fall.

There have been some doctrinal views upheld with great earnestness in the Christian Church founded upon a very literal adherence to Scriptural statements of an apparently *physical* kind; as, for example, those physiological effects so commonly imagined to be connected with the doctrine of "the Fall," in virtue of which death is supposed to have become for the first time inherent not only in the

Death.

human constitution but in that of all inferior animals; an assertion which the slightest knowledge of palæontology at once disproves.

Physical death is the necessary condition of animal existence in this world, as the slightest reflection must show that immortality in the body in this earth would be simply a physical impossibility. The sentence of death pronounced on Adam would surely still have been *penal*, even if he were already mortal. The highest privileges of the Gospel do not exempt men from bodily dissolution, nor has its spiritual regeneration any connection with relief from bodily infirmity, suffering, or labour.

Labour a suffering.

These evils must have occurred in natural life on the earth constituted as it is, or ever has been. Yet they are to a great extent, and may and will be hereafter to a far greater, remedied and overcome by the use of the faculties and means with which man is gifted, and by science duly applied to physical agents.

Among these we may notice as a pre-eminent instance the discovery of chloroform, which has practically annulled the Mosaic denunciation on parturition; yet there have been found some bigots at once

so inhuman and so senseless as to denounce the invention and forbid its use *because* it does so.

Sin and evil.

That the human race is by natural transmission actually subject to disease and death, is of course undeniably the fact, as is the case in various degrees with all other species of animals. Again,—as a matter of fact,—that all men are naturally prone to evil is equally the teaching of all experience and history as of Scripture. But the tenor of St. Paul's argument—while he adopts the Mosaic narrative of Adam's disobedience, and traces sin to that origin—is clearly not to enforce any *physical* ideas, but to bring his hearers to acknowledge the condemnation of all men for their sins[1]: and this with the sole object that they might seek deliverance in Christ.[2] Thus, without insisting on anything at variance with truths recognised by reason and science, *faith* can advance, without disparagement or difficulty, to the spiritual doctrines of original sin and regeneration asserted in the Christian creeds.

Origin of man.

The descent of the whole human race from one primeval stock, so as to constitute only one natural

[1] Rom. v. 12. [2] Rom. v. 14.

species, has been an opinion extensively maintained on physiological grounds, yet to which, on like scientific arguments, physiological and archæological, by others, serious objections have been felt, and an opposite view maintained.

Though there can be little doubt that the writers of the New Testament held the common belief of their countrymen on this point, as derived from the Mosaic writings, yet they nowhere lay any stress upon the assertion of it; nor would the spiritual and practical doctrines they found upon it be in the least invalidated even if the opinion of a diversity of race, so much advocated by some philosophers, should eventually be established.

Physical references to the Old Testament

We find numerous references and allusions, more or less direct, in the New Testament to the physical statements and representations of the Old; such as to the Creation, the account of Adam and Eve, the Deluge, the Mosaic and prophetic miracles, and the like.[1] In general it may be supposed admitted that such references would be made by the Apostles and Evangelists, as Jews, in the literal acceptation of

[1] As *e. g.* 1 Cor. x. 1, &c.; 1 Pet. iii. 21; 2 Pet. iii. 6, 13, &c.

their cotemporaries; yet at the same time we observe them always introduced and applied solely for the purposes of higher moral and religious instruction,—never dwelt upon in themselves:

Physical allusions in the New Testament

Throughout the New Testament, allusions to external nature and the physical economy of the world —its creation, or predicted destruction and renovation, are of course made in descriptive language, and modes of expression accordant with the prevalent ideas and belief, especially as derived from the Hebrew Scriptures. But in these instances we may clearly regard the real object as referring to the *doctrine* inculcated, not the *physical imagery* in which it may be conveyed.

Various expressions of the sacred writers,—*literally* of a peculiar *physical* import, in accordance with the ideas of their age,—obviously cannot now be understood in the same sense, or possess the same force, in the existing state of knowledge. Thus, phrases implying literally a local heaven above the solid firmament, or a local hades beneath the earth,—an ascent to the one, or a descent to the other, cannot now be accepted as physical descriptions.

Yet no reflecting inquirer at the present day sup-

poses that because better cosmological views have been attained, the substantial religious doctrines conveyed under those representations are at all impugned.

do not affect the Christian doctrine.

No educated or thinking person supposes that the existence of antipodes, or the motion of the earth,—or of the entire solar system,—or the infinite extension of stellar worlds,—or any similar physical truths, can in any way really affect the spiritual mysteries proclaimed by the Apostles, whether relating to the person and office, the humiliation or glorification, of Christ, or to the condition, privileges, or hopes of His followers,—in whatever descriptive language or sensible imagery they may have been clothed and inculcated.

Description of future state.

The announcement of a future life, and even of the manner and circumstances in which its introduction is predicted to take place, forming, as it does, so prominent a topic in the New Testament, are delivered in *terms*, no doubt directly derived from material objects and expressive of physical agency, which may reasonably be understood as a mode of representing unseen mysteries to human apprehension by sensible imagery, and in their literal and material

sense, can no more be insisted on than the literal *period* of their occurrence, so undeniably assigned in the Apostolic writings as then close at hand. The reality represented belongs wholly to a spiritual order of things:—and though it might be argued that, even in a philosophical point of view, we know not how many or how vast are the changes which matter and life,—body and spirit,—the material and the moral world,—may be destined to undergo in the progress of countless ages,—yet any such conceptions must fall *infinitely short* of those elevated contemplations,—rather are of a totally *different order* from any ideas of a future state to which Christianity points;—and which are wholly incomprehensible to human reason, and exclusively the embodiments of revelation, and objects of faith.

Wholly unconnected with philosophy.

The representations of a future life are put forth in the New Testament in a sense wholly different from that of any philosophical speculations on an immaterial or immortal principle existing in man, and in no way dependent on the question of materialism or immaterialism. It is spoken of in spiritualised language as "a mystery"[1] which conveys no

[1] 1 Cor. xv. 51.

ideas cognisable to reason; and, the whole doctrine, as delivered by the Apostle, is altogether alien from any philosophical views whatsoever, physical or metaphysical, and is wholly the creation of inspiration, the teaching of faith.[1]

This doctrine is expressly made of the most fundamental importance by the Apostle[2], although the precise nature of the event spoken of is not in the slightest degree hinted at. The metaphor of the seed sown and the plant springing up from it has manifestly no analogy with a material body and an immaterial soul. The corporeal resurrection of Christ, whose "flesh saw no corruption,"[3] is still less literally applicable to the remote future resurrection of a "spiritual body." In such representations here is no parallel in *reason;* they can be accepted solely as matters of *faith* and *revelation,* in the sense put on them by the Apostle. Such instances only show how entirely spiritual mysteries must stand on their own ground, and can be in no way amenable to any natural comparisons or material conceptions. They

[1] See "Unity of Worlds," p. 309, 2nd ed.

[2] 1 Cor. xv. 14. [3] Acts ii. 31.

are matters necessarily unsatisfactory to curiosity, unapproachable by reason, yet sufficient for faith—and for practice.

Materialism and immaterialism.

Again: with respect to spiritual influences, whether in a more ordinary or more exalted form, and those doctrines of Christianity which relate to them,—and are often understood as if necessarily assuming a distinct spiritual principle of existence in man,—it must be observed that any expressions of the New Testament writers which seem to imply such a distinct existence yet nowhere assert it in any precise or physiological sense. All that is said is conveyed in forms of representation referring to an order of things totally distinct from those contemplated in any philosophical theories, and implying that distinct and spiritual character which is expressed by such phrases as a new birth, a new creation[1], and the like, derived wholly from the Divine gift; while at the same time it is not less clearly intimated that such influence is to be judged of solely by its *practical fruits*, as the only test of its reality. But all these practical results or operations are the same on any

[1] John iii. 2; Gal. vi. 15, &c.

hypothesis as to the internal nature of man, and the reference to them is entirely independent of any question between the material and the immaterial theories of metaphysicians, which in no way affect any of the doctrines of Christianity,—the infusion of Divine grace[1], or the renewal of man in the image of God.[2] So long as man is admitted to have the capacity for receiving, and the power of acting in accordance with, these Divine inspirations, it is wholly irrelevant whether his constitution be believed to consist of material atoms or of immaterial entities, or a combination of both. On either theory the *operations* of the mind will practically remain equally distinct from those of the body;—and the spiritual nature and affections equally different from the carnal or animal nature and propensities of man.

Nor can any such questions as to present existence in any way affect the belief in a future life,—resting, as we have observed it does, entirely on the simple assertion of inspired teaching, which is wholly irrespective of any distinctions of human reason or speculative theories.

[1] 1 Cor. xii. 7.

[2] Col. iii. 10.

Temporal blessings and judgments.

The belief, common to many nations, but an essential point in the religion of the Jews, — that famines and pestilences, droughts and rains, fertility and abundance, — and the like temporal and national events, — were judgments or blessings, brought about as express retributions, by direct divine interposition, — though deprived of its religious importance by the essential principles and very nature of the New dispensation[1], was yet doubtless sometimes alluded to by the Apostles; — but never in such a way as either to contravene the spiritual, future, and unseen nature of the sanctions held out by the Gospel, or to stand in any contradiction to the advance of modern knowledge, by whose light all such events are seen to be the results of immutable laws, and a part of the fixed order of the natural world, which constitutes the idea of Divine Providence.

Apostolic powers.

Not unconnected with the last topic are the confessedly obscure allusions made by St. Paul to a power vested in the Apostles of punishing offenders against the order of the Church by temporal inflic-

[1] See Second Series of Essays, "Christianity without Judaism," pp. 105, 109, 152.

tions [1]: but these (whatever they may mean) are on all hands admitted to have no application beyond the temporary circumstances of the case and the personal authority of the Apostle.

Witchcraft.

It may here also be added (in relation to a topic before adverted to) there can be little doubt that the Apostles partook in the belief of their age in the reality of *witchcraft*, though nowhere expressing it otherwise than by denouncing the practice as a sin [2], which it must be to any one believing in it.

Moral order.

Again, the doctrine of the Divine counsels—the providential government of the world,—the nature and destinies of man, are topics which may remotely be found connected with science in respect to those great inductive laws which (as we before observed) are now beginning to be investigated as regulating the course of human events, and the conditions of social existence, enabling us to trace plan and order even in the moral world; but these deductions cannot really impugn the truths of the spiritual world.

Philosophy teaches us that "we live and move and have our being" according to certain deter-

[1] As, *e. g.* 1 Cor. xi. 30; v. 5.

[2] Gal. v. 20.

minate laws: Revelation tells us that we do so "in God." Reason and science point out the natural and moral order of the world and its invariable laws. Faith invests them with a new character as the manifestations of Divine government and providence. Metaphysical principles may lead to the theory of moral necessity on the one hand, or of free agency on the other. The Gospel, without entering on the question at all, at once inculcates moral obligations as the results of faith, and refers everything to Divine grace.

General conclusion. Recurrence to faith.

In the foregoing survey of the relations of Christianity to the physical order of things, and especially to miracles, in the form which any view of that question necessarily takes in the present day, it has been observed that the point to which opinion seems from various quarters to be converging, both among enlightened believers and thinking and inquiring minds, even of very different schools, is to recede from the precise and formal arguments once so much insisted on, but now seen to involve so many phy-

sical difficulties, and to recur to more purely *spiritual* considerations and the ground of *faith* in the reception of revelation;—a view which so eminently harmonises with its nature as a disclosure of spiritual mysteries of the unseen world.

No difficulty in spiritual mysteries from physical truth.

If in what has preceded no reference has been made to such high mysteries as the Trinity, the union of the Divine and Human natures in Christ, the Atonement by His death—the influence of the Holy Spirit—or Sacramental grace,—it is because these and the like tenets of the Church do not properly fall under the present discussion—since though in some few points touching upon material things—on the human existence and death of Christ, and on the nature of man,—yet they involve no consideration of a *physical* kind infringing on the visible order of the natural world; and thus cannot be open to any difficulties of the kind here contemplated:—in fact all the objections which have been raised against them are of a metaphysical, moral, or philological nature.

But if, in other cases, the highest doctrines are essentially connected with the narrative of miracles, we have seen that the most earnest believers con-

Miracles merged in mysteries.

template the *miracle* by the light of the *doctrine*, and both solely with the eye of *faith;* and thus when, as in some of the chief articles of the Christian formularies the invisible world seems to be brought into immediate connection with the visible, —the region of faith with that of sense,—when heavenly mysteries are represented as involved in earthly marvels,—the spirit of faith obviates the difficulties of reason by claiming them to its own province and prerogative.

Greater miracles spiritualised in the New Testament.

And if we turn to the New Testament, and acknowledge in its later writings, especially those of St. Paul, the fullest development of Apostolic Christianity, we there find, in a very remarkable manner, that no reference is made to any of the Gospel miracles, except only those specially connected with the personal office and nature of Christ; and even these are never insisted on in their physical details, but solely in their spiritual and doctrinal application.

Thus, the resurrection of Christ is emphatically dwelt upon, not in its physical letter, but in its doctrinal spirit[1]; not as a physiological phenomenon, but as the corner-stone of Christian faith and hope,

[1] Rom. iv. 25.

the type of spiritual life here and the assurance of eternal life hereafter.[1]

So, in like manner, the transcendent mysteries of the Incarnation and the Ascension are never alluded to at all by the Apostles in a historical or material sense, but only so far as they are involved in points of *spiritual* doctrine, and as objects of *faith;* as connected with the Divine manifestation of "the Word made flesh,"[2] "yet without sin,"[3]—with the *inscrutable* work of redemption on earth[4] and the *unseen* intercession in heaven[5],—with the *invisible* dispensations of the gifts of grace from above[6], and with the *hidden* things of the future[7], which "eye hath not seen, nor ear heard, nor have entered the heart of man,"—with the *predicted* return of Christ to judge the world[8],—and the eternal triumph of His *heavenly* kingdom.[9]

In the Church.

And in this spiritualised sense has the Christian Church in all ages acknowledged these Divine mysteries and miracles, "not of sight, but of faith,"—not

[1] Rom. vi. 4; Col. iii. 1, 2. [2] John i. 14; Gal. iv. 4.
[3] Heb. iv. 15. [4] Phil. ii. 6. [5] Rom. viii. 34. [6] Eph. iv. 8.
[7] 1 Cor. ii. 9. [8] Acts ii. 11. [9] 1 Cor. xv. 24.

expounded by science, but delivered in traditional formularies,—celebrated in festivals and solemnities,—by sacred rites and symbols,—embodied in the creations of art,—and proclaimed by choral harmonies;—through all which the spirit of faith adores the "great mystery of godliness—manifested in the "flesh—justified in the spirit—seen of angels—"preached unto the Gentiles—believed on in the "world—received up into glory."[1]

[1] 2 Tim. iii. 16.

APPENDIX.

APPENDIX.

No. I.

On Recent Views of Organic "Creation."

In relation to the whole question of the origin of species and the theory of "creation," I cannot omit to make a brief reference to a recently published work, which appears to be of the highest interest, more especially as bearing on the same points to which I have adverted in my third Essay on the "Unity of Worlds," affording a striking instance of the high philosophic spirit in which a writer, eminent as a geologist and naturalist, has ventured to reason freely, and to break through at least some conventional dogmas; while his argument tends to confirm, to a very considerable extent, with the weight of detailed evidence from wide and accurate generalisations, in many respects at least the same views which I have attempted, on analogical and theoretic grounds alone, to uphold. I allude to the "Investigation of the Laws of Development of the Organic World," &c., by Professor H. G. Bronn, of Heidelberg, which obtained the prize of the French Academy of Sciences, 1856, and of which a notice has appeared in the Quarterly Journal of the Geological Society, No. 57, February, 1859.

In order to note more precisely the extent to which what I have regarded as the *true inductive* view of the case, is borne out by the elaborate investigations of Professor Bronn, I will subjoin a few extracts from his work (taken from the notice referred to), in which those points are specially introduced which are most material to the question,—adding my own comments.

With respect to the succession of species the author observes that the naturalist might at first be "disposed "to consider them as the immediate emanation of a divine "creative act. But . . . he must also say to himself "that nothing else in nature acts by such a power, but "that everything is arranged and formed by universal "laws implanted in the matter itself; that here also "analogy necessarily leads us to presuppose a similar, "although to us unknown, power, which has produced "the species of plants and animals, and which, perhaps, "as has been assumed by Lyell, still continues, although "only on rare occasions, to produce them."

As to the first supposition of a sudden creative act, the real question would be what is meant by the expression? And the least reflection shows that it is simply an idea derived from religion, and which, therefore, can have no place in science, as it is derived from nothing which science can teach.

The alternative hardly need have been proposed. But all analogy undoubtedly demands the author's second supposition. It is, however, an *assumption* not to be too hastily made, that the power in question is of an *unknown* kind.

This is to beg the whole question: theories have been suggested which propose *known* causes; these, therefore,

require careful examination before we can be certain that no *known* cause, under *any modifications*, can suffice.

It is, however, equally clear in itself, and most properly adverted to by the author, that the great point at issue is not so much the *changes* in species at successive epochs, as the *original* constitution of any such thing as distinct species,—the original separation of organic and inorganic forms.

But with regard to new species:—

"No experience proves that any one species or genus, "or even an order or a class, has really been transformed "into another. And, as for those palæontologists who "maintain that only the first plants and animals of the "earth were produced by immediate creation, they have "obtained no real simplification of the laws of nature "by merely limiting the period of immediate creation to "a somewhat shorter time."

The argument against transformation from *want of experience*, I conceive I have fully disposed of.[1] It is not likely that the author had seen my essays; or, I think, he would not have reiterated this stereotyped form of objection without some notice of the arguments which appear to me to evince its utter fallacy and inapplicability.

Most just and admirable is the remark which follows: the idea of "Creation" certainly gives no explanation; it professedly shuts out all explanation, and reduces the whole to a point of faith.

Again:—". . . . The naturalist would be equally

[1] Unity of Worlds, Essay III. § 3. p. 434. 2nd ed.

"inconsistent if he trusted to a *generatio spontanea*, "which has never been proved; and yet we know of no "third explanation."

We could, I should say, imagine a third explanation only when we can imagine matter to come under some third class besides *organic* or *inorganic*. An organised being *must*, I conceive, have originated *either* out of its *inorganic* elements, *or* out of some previously *organised* form.

It is idle to dispute on such terms as "generatio spontanea" or "equivoca." The real question is, which does natural analogy render most probable, as a conjecture, of the only two *possible* suppositions.

Again the author puts the alternative that we must suppose either a continued supernatural creation, or, what he justly contends is far more worthy of the divine perfections, that "there existed some natural power "hitherto entirely unknown to us, which, by means of "its own laws, formed the species of plants and animals, "and arranged and regulated all those countless indi- "vidual conditions;—which power, however, must in "this case have stood in the most immediate connection "with, and in perfect subordination to, those powers "which caused the gradually progressing perfection of "the crust of the earth, and the gradual development of "the outward conditions of life for the constantly in- "creasing numbers of higher classes of organic forms."

Here, in the first instance, the same *assumption* is made that the productive power must be of a kind *wholly unknown to us*. We have no *positive* evidence to *disprove* the formation of organised beings out of their inorganic elements, however much evidence to *prove* it be *wanting*. The same is equally true of their development out of

existing organised forms; though here we have some slight foundation for conjecture in the occasional deviations from established types, which might conceivably be carried out to a greater extent under great changes of condition and in immense periods of time.

When the author says, "No traces can be found of a "gradual transformation of old species and genera into "new, but the new have everywhere appeared as new "without the cooperation of the former," he appears to found his conclusion on the trite argument of the *absence* of intermediate remains, and on the supposition of real gaps between the different formations or epochs of organised life. But the belief in the universal law of *continuity* as a paramount natural principle, must lead us to regard such appearances of interruption as simply due *to our ignorance.* The apparent isolation and separation of the new species from the old, even in the most marked and extreme cases, we are warranted in inferring, can only be the real exponent of *the absence of evidence to us*, not of real deficiency of links in the chain of existence. The apparent interval between the forms of paleozoic (for example) and of mesozoic life, is most probably only the indication of a *vast period of time* which intervened, and during which no remains happened to be embodied in any deposits which have come to our view, or, during which no deposits were made at any points hitherto examined.

The author maintains that the sequence of organic beings has been regulated by these two laws: —

"1. By an independent productive power, constantly "advancing in an *in*tensive as well as *ex*tensive direction "or degree."

"2. By the nature and change of the outward con-
"ditions of existence under which the organic beings to
"be called forth, were to live. . . . Both these laws are
"in the closest connection with each other, although we
"cannot understand the productive power."

I will only add that, though at present we have no *positive knowledge* of the productive power, it is clear that it will be by the careful study of the operation of these great laws *conjointly* that we may hope ultimately to obtain that knowledge.

It is absurd to argue that the introduction of *new forms of life*, or new species of organised beings, in the successive epochs of the earth's formation, involves a peculiar mysterious power, or supernatural creation, merely because we do not at present know the cause of life or see new species arise before our eyes, which, it may be added, we could never detect as such if they did.

All such fancies must be sternly banished from the domain of real science. Life is found superadded to matter, acting upon it, and acted upon by it: in every way it is connected with matter and dependent on the laws of matter and influenced by physical agencies. It is every instant being continually imparted to fresh matter by purely physical agencies; and subject to laws which, being invariable, are therefore physical, and, being unknown, only remain to be made known.

In fact, the whole history of the past discussion of these and the allied topics has displayed little more than that kind of unsatisfactory controversy in which the rival influences of the philosophical and the mystical spirit have been arrayed against each other, the real point at issue frequently misunderstood, or too often

purposely obscured. If the term "creation" be used, it is only important to bear in mind the distinction that it is not any conception of *science*, but the language in which *religion* invests natural facts, or connects them with more sublime reflections.

It may not be irrelevant to add that, among the various approaches towards the *synthesis* of organic structures by chemical means, an additional step has been recently made by Mr. Rainey, M.R.C.S.[1], who, by a double decomposition of lime with carbonate of soda or potash, each previously dissolved in water, containing in solution some viscid animal or vegetable substance (as gum arabic or albumen), and left at rest for some weeks, has produced carbonate of lime, not in a crystalline, but a *globular* form, and found these molecules to combine into a structure so closely resembling certain animal products that no microscope could detect a difference.

No. II.

On Materialism.

I HAVE before alluded to a fallacy into which some eminent writers have fallen on the question of materialism.[2]

It is remarkable that a writer, in a recent number of the "Edinburgh Review," has adopted exactly the same fallacious line of argument. The passage is as follows:—

[1] Medico-Chirurgical Review, No. XL., Oct. 1857, p. 451.

[2] See above, Essay I. p. 178.

"The question of materialism, on which so much con-
"troversy has been wasted — a controversy equally
"fruitless, we believe, in all time to come, since no con-
"ception can reach the abstract nature either of matter
"or mind, nor any argument show that things perceived
"by the senses have more of independent reality than
"the principle perceiving, and the intelligence and
"volition acting upon them. The materialist fancies
"himself on firm ground because his argument has matter
"for its foundation. This matter itself is known only
"by, and through, that mind which he assumes to create
"out of it." [1]

On this I would observe that the question of materialism (even supposing it to be thus hopeless) is surely not so for the reason assigned: — it does not in the least depend on the abstract nature either of matter or of mind, or our power to conceive it.

The real question is simply whether the phenomena of what we call thought and intellect, can possibly be explained by any imaginable combination of purely physical agencies, such as might arise from the conditions of material organisation.

Nor is this question at all *hopeless*, since more extended inductive inquiry is continually bringing us nearer to more intimate knowledge of those vital and organic functions, of the action of the brain and nervous system, which constitute the most probable channel through which some knowledge of this kind may be eventually, however remotely, conveyed to us.

[1] Edinb. Rev. Jan. 1859, p. 251.

The assertion with which the writer arrives at his climax, that matter is only known through mind, does not really touch the question whether mind may be explicable by any combination of the actions or affections of matter, or whether it may be possible to prove that the brain thinks in the same sense as that in which the stomach digests or the lungs respire.

And this is independent of the question whether the physical agencies or agents concerned are believed to be material or not; the points really contemplated are solely *relations* already known and established under physical laws, and the question is whether the source of mental *operations* can ever be brought under those laws or relations, or whether it is necessary to refer them to some others of a different kind and order.

The superior certainty with which conclusions respecting matter (*i. e.* the *relations* of matter) are deduced is in no way affected by the reference to mind through which alone those conclusions are formed; it results simply from the definiteness of the nature of the phenomena, their being capable of repeated examination and comparison under varied conditions, and, in so many cases, of exact measure and computation, and, that being external, they are less determined by subjective considerations.

Moral and mental phenomena, not being susceptible of this precision in statement, or of the same kind of examination, necessarily remain more vague; and, being internal, must inevitably be, in a far greater degree, purely subjective.

No. III.

On Grounds of Belief.

As bearing closely on some of the main topics of the foregoing discussion, and corroborating what I have advanced, by the authority of one of the first philosophers of the age, I must here add two brief quotations from the admirable lecture on Mental Education of Professor Faraday.

The first of these sums up, in brief, but emphatic terms, the whole question of a class of marvels before alluded to[1]: —

"I am not bound to explain how a table tilts any more "than to indicate how, under a conjuror's hands, a pud- "ding appears in a hat. The means are not known to "me. I am persuaded that the results, however strange "they may appear, are in accordance with that which is "truly known, and, if carefully investigated, would "justify the well-tried laws of nature."[2]

The next passage refers to the higher topic of the grounds of religious belief: —

"I believe that the truth of that future [life] cannot "be brought to his [man's] knowledge by any exertion "of his mental powers, however exalted they may be: that "it is made known to him by other teaching than his "own, and is received through simple belief of the testi-

[1] See above, p. 264.

[2] Lectures on Education, delivered at the Royal Institution: "On "Mental Education," p. 78. 1855.

"mony given. Let no one suppose for a moment that "the self-education I am about to commend, in respect "of the things of this life, extends to any consi- "derations of the hope set before us, as if man by "reasoning could find out God. It would be improper "here to enter upon this subject further than to claim "an absolute distinction between religious and ordinary "belief. I shall be reproached with the weakness of "refusing to apply those mental operations which I "think good in respect of high things, to the very "highest. I am content to bear this reproach. Yet, "even in earthly matters, I believe that the invisible "things of Him, from the creation of the world, are "clearly seen, being understood by the things which are "made, even His eternal power and Godhead. And I "have never seen anything incompatible between those "things of man which can be known by the spirit of "man, which is within him, and those higher things "concerning his future, which he cannot know by that "spirit."[1]

No. IV.

Note on Bishop Berkeley.

(See p. 129.)

ONE material instance of Bishop Berkeley's physical speculations ought not to be omitted,—those, namely, referring to the theory of Vision;—to which he expressly gave a theological turn—more especially in a tract,

[1] Lectures on Education: "On Mental Education," p. 40.

perhaps less known than some of his writings, entitled "The Theory of Vision, or Visual Language, showing "the immediate Presence and Providence of a Deity, "vindicated and explained, 1723," where he goes into extensive discussions, both optical and metaphysical, in reference to the connection of ocular impressions with intellectual ideas, and their relation to the order of the natural world, maintaining especially that "Vision is the language of the Author of nature." [1]

No. V.

Theory of Life.

In reference to the remarks made[2] on this deeply interesting, and as yet obscure subject, I may take the opportunity of alluding to some highly ingenious speculations, and original researches on the subject, by Mr. Hinton, in a paper "On the Proximate Cause of Functional Action."[3] He compares the organised body to a machine in which certain sources of power are *held in constraint* (as the pressure of steam, the force of the spring, the gravitation of the weight, &c., in machines), which are brought into action by the mechanism, permitting just so much as is wanted to produce the result. Thus, in the animal body, the various chemical, &c., forces are *held in constraint*, and only act just so far as the various antagonistic causes permit.

[1] Page 32.

[2] Page 170.

[3] Med. Chir. Rev., July, 1856.

No. VI.

On Causation.

THROUGHOUT the whole of the preceding discussion no point is of more essential importance than a clear conception of what is meant by the term "causation." In further illustration of this point I cannot omit here to cite a remarkable passage in the masterly work of Mr. Buckle, so often before referred to, and to which I most gladly own my obligations, especially in many parts of my historical sketch.

Speaking of the popular belief in divine interposition in natural events, Mr. Buckle observes[1]:—

"The people at large never enter into such subtleties "as the difference between law and cause; a differ- "ence, indeed, which is so neglected that it is often "lost sight of even in scientific books. All that the "people know, is that events, which they once believed "to be directly controlled by the Deity and modified by "Him, are not only foretold by the human mind, but "are altered by human interference. The attempts which "Paley and others have made to solve this mystery, by "rising from laws to the cause, are evidently futile, "because, to the eye of reason, the solution is as incom- "prehensible as the problem, and the arguments of the "natural theologians, in so far as they are arguments, "must depend on reason. As Mr. Newman truly says, "'A God, uncaused and existing from eternity, is to the "'full as incomprehensible as a world uncaused and

[1] Hist. of Civilisation, p. 343, note.

"'existing from eternity. We must not reject the "'latter theory as incomprehensible,—for so is every "'other possible theory.'[1] The truth of this conclusion "is unintentionally confirmed by the defence of the old "method, which is set up by Dr. Whewell in his "'Bridgewater Treatise,' pp. 262–5, because the remarks "made by that able writer refer to men who, from their "vast powers, were most likely to rise to that transcen- "dental view of religion which is steadily gaining ground "among us. Kant, probably the deepest thinker of the "18th century, clearly saw that no arguments drawn "from the external world could prove the existence of a "First Cause."

On this I would merely observe how completely the confusion among the writers referred to appears to result simply from the common mystification as to the idea of "causation," which I have endeavoured to dispel in the remarks before made.[2]

To illustrate further what I have there represented, by putting it under a slightly different aspect, I would say that, whenever we have *merely* an *inductive* truth, then we can have no other real idea of causation than what Hume calls "invariable," or Mr. Mill "unconditional," "sequence," or, as I would prefer, "relation" or "concurrence;" because "sequence" seems to imply the consideration of *time*, which is irrelevant and misleading.

But whenever we have not only *induction*, but also

[1] F. Newman's Nat. Hist. of the Soul, 1849, p. 36.

[2] See above, Essay I. p. 140; Essay II. p. 233; and Unity of Worlds, Essay I. § 4.

deduction, or can show that the fact in question is a *necessary consequence*, from some other fact or principle previously established, there we have the *higher* idea of causation as a *necessary connection in reason;* and this is often extended to successively higher degrees of generality, and gives the more extended succession and indissoluble chain of causation throughout physical phenomena.

All notion of causation, beyond this positive conception, appears to me to be the mere fond invention, though very natural fancy, of efficient agency, power, or the like, in which men are prone to indulge, and which they allege the mind *requires;* but merely because it is not yet emancipated from a state of metaphysical mysticism.

No. VII.

Science and Creeds.

ALLUSION has been more than once made to the very literal and materialised forms of belief prevalent in past ages. And in the creeds of the ancient church we cannot but perceive the indication of a large admixture of physical ideas; which, according to the conceptions of the time, were closely mixed up with the reception of spiritual truths, and in their most literal sense were even specially insisted on in connection with the fundamental articles of belief. The interpretation of such propositions must of necessity undergo some modification as physical ideas are modified and advanced. The Reformation, indeed, led to the rejection of the very materialised sense in which some points of faith had been thus involved, and which stood in opposition to its views.

Yet in many instances statements of the same kind were retained even in the formularies of the reformed churches, and it is curious to consider the application sometimes given to them. For instance:—Some of the reformers strongly insisted on the point of faith that the *human body* of Christ is in *heaven*, in order to found on it an argument against transubstantiation, in that His natural body could not be at the same time on earth, or in different places at once: an argument which would be equally valid without reference to the locality of heaven. Such representations may be viewed in very different lights by the advancing spirit of modern intelligence; but without at all invading any real religious truth conveyed under those expressions.

No. VIII.

Documentary Evidence.

THE subject of the documentary evidence of the Gospels has been briefly alluded to above[1], and though familiar to biblical scholars, it may claim a few more detailed remarks for the general reader.

Precisely in proportion as the belief in Christianity is regarded as connected with the external events of its origin must the importance of this branch of the inquiry be admitted; and in the same degree must it be allowed *essential* that the critical discussion should be *absolutely free and unfettered:* documents can be trustworthy only so far as they are open to unreserved scrutiny. No

[1] Page 352.

limit can be imposed by any idea of profane intrusion into sacred ground, or the like reverential consideration, without utterly destroying the value of the testimony. The inquirer must not shrink from any apparent difficulties, or the dread of encountering facts which may militate against his prepossessions, or may seem unfavourable to the desired conclusion.

On these points a more extended inquiry is forced upon the student of these times. He cannot shut his eyes to the accumulated critical labours of a school which, commencing a century ago in Germany, has now been taken up in this country, and by various channels familiarised to English readers. But on the results of these investigations the independent inquirer must with equal fearlessness use his own judgment. If such critics have often been too unsparing in their sentence, and may have incurred the charge of unduly indulging in a captious scepticism, it cannot be denied, on the other hand, that there has often been a want of candour in not duly owning the imperfections of textual authority, or the unfavourable character of some part of the testimony.

The *text* of the received books has been open to "recensions," even from early times. Various amendments have from time to time been made as manuscript authority has been more accurately searched into. Thus passages which long retained their place in the text, have by modern research been displaced from their former position, as others may still be; and in various parts doubts have been entertained which are not even now cleared up to the satisfaction of all critical inquirers.

It will be hardly necessary to refer to the well-known instances of the interpolations in 1 John v. 7, and 1

Tim. iii. 16, especially the former, so long contested but now given up by the most orthodox divines.[1]

Among the rationalistic critics, we encounter the greatest difference of opinion as to the genuineness of different books. Thus in the long-continued controversy as to the date and authorship of the fourth Gospel: those who accept it as the production of the Apostle John, yet regard the Apocalypse as by a different person of the same name; while others contend that this last is the genuine work of the Apostle, bearing the stamp of the early or Judaic stage of the Church; while the Gospel and Epistles belong to a later period of the development of doctrine, and, as contended by Strauss and Baur, are productions of the end of the second century. The twenty-first chapter and the beginning of the eighth are supposed to be additions by a different hand. Schleiermacher maintained an elaborate theory of the origin of the first three Gospels as all modifications from a common original document. Some think the Gospel of S. Mark the *earliest* germinal form of Evangelic tradition: others conceive it to have been the *latest;* omitting many points to conciliate the Jewish and Gentile converts: — the last nine verses are also affirmed to have been added by a later hand. The differences in the accounts of Christ in the several narratives are vindicated by the allegation that they are not greater than those in different biographies of any eminent individual. They are compared to the discrepant accounts of Socrates given by Plato and by

[1] See Dr. Burton; Bampt. Lect. p. 523.

Xenophon: and the discourses,—to those which historians put into the mouths of their generals and legislators.[1]

It is worthy of notice to what an extent the writers of the "Tracts for the Times," in supporting the authority of the Church, push the comparison of difficulties alleged against that doctrine, with those which attend the determination of the Canon of the New Testament, and put forth in prominent contrast all the objections of the latter class.[2] Thus they dwell pointedly on the discrepancies of the early catalogues, — the rejection of the Epistle to the Hebrews by the Eastern Church; and of the Apocalypse by the Western; — the contradictory testimonies of the Fathers; — as that Tertullian supports while Jerome doubts the Epistle to Philemon; that Origen upholds the Epistle of Barnabas, and refers to *fourteen* Epistles of S. Paul; that Irenæus ascribes the Epistle to the Hebrews to S. Paul, Tertullian to Barnabas, others to Apollos. If Caius is so certain an authority in favour of the Gospels, he must be equally so against this Epistle. They urge that there existed no determined Canon till the fourth century, when this Epistle and the Apocalypse were first duly recognised, and the whole volume then first definitively inaugurated, — solely by virtue of that authority of the Church which dictated many tenets and practices so much objected to by those who yet cling to the text which derives its sanction only from the same source.

Nevertheless, the authorship of the Epistle to the He-

[1] See Oxford Essays, p. 117, 1857.

[2] See Tract No. LXXXV. pp. 75—78.

brews is still an open question; though Paulus, in an elaborate dissertation (Heidelberg, 1835), assigns it to the Apostle of his name. Of the Epistles of Clement, the fellow-labourer of S. Paul, the only known copy is not only included with the New Testament in the celebrated Alexandrian MS.; but they are enumerated in the list of canonical books prefixed.

Great reliance is placed on the testimony of Eusebius (A.D. 314): but the slightest acquaintance with his writings suffices to show the very mixed and uncertain character of his statements. He gives indeed the remarkable attestations of Papias (in the second century) to the Gospels, especially to the Hebrew original of St. Matthew[2]: but he also gives as genuine the letter of Christ himself to King Agbarus, and mentions the Epistles of James and 2nd of Peter as held to be spurious.

Eusebius seems to distinguish between the Apostle John and another John who wrote the Apocalypse. He also speaks of the tradition that Mark wrote from the dictation of Peter: and of Luke as compiling the received traditions: but all this is mixed up with many childish legends, and altogether evinces the very dubious nature of the authorities on which he relied.

S. Jerome (about A.D. 390), besides mentioning the Hebrew Gospel of S. Matthew and a translation made by an unknown hand[3], says, "Concerning the number of "the Evangelists, it should be known that there were "many who had written Gospels, as the Evangelist

[1] Heidelberg, 1835. [2] Eccl. Hist. lib. iii. c. 24, 39.
[3] Prolog. in Evang. Matth.

"Luke witnesses, saying, 'Forasmuch as many [1],' &c., and "as books remaining to the present time declare, which "divers authors have set forth, therein laying the founda- "tion of many heresies, such as the Gospel according to "the Egyptians, according to Thomas, Matthias, and "Bartholomew;—that of the twelve Apostles, of Basi- "lides, of Apelles, and others whom it would be long "to reckon up. But the Church, which is founded by the "Lord's word upon the Rock sending forth like Paradise "its four streams, has four corners, and four rings, by "which the ark of the covenant and the guardian of the "law of the Lord is carried about on movable staves."

Augustine [2] assigns as a reason for there being four Gospels "that there are four quarters of the world, "through the whole of which Christ's Church is ex- "tended." [3]

Irenæus asserts the authority of the four Gospels; but it is by a comparison with the four winds, and the four quarters of the globe.[4] That writer, as well as Clement of Alexandria and Origen, attest the canonical books by their quotations:—but they quote as equal authority the "Gospel of the Hebrews," the "Shepherd of Hermas," and the "Apocalypse of S. Peter."

But most of these writers betray such fanciful tendencies, such uncritical and indiscriminate credulity, as must go far to vitiate their testimony: to say nothing of their open vindication of pious frauds;—as by Clement

[1] Luke, i. 1.
[2] De Cons. Evang. i. 2.
[3] Adv. Hæres. lib. iii. c. 2.
[4] Ib. c. 11.

of Alexandria, who justifies using falsehoods in religious teaching, "as a physician does for the good of his patient;"[1] and Jerome[2], after defending generally the practice of dissimulation in argument by the example of gladiators in combat, as well as philosophical disputants among the ancients, expressly cites the instances of the Christian advocates Origen, Methodius, Eusebius, &c., "who say they are sometimes obliged to speak, not "what they think, but what is expedient, in opposing "the pagans." He also enumerates others in the same category, as Tertullian, Cyprian, Hilary, and several more.

On the whole subject here discussed the reader will find much valuable critical information in the acute work of Mr. Mackay, "The Rise and Progress of Christianity, &c.," London, 1854, though I do not concur in all the author's views.

A valuable philological argument has been advanced by one of the first living Greek scholars, Bishop Maltby, from the peculiarities of the Macedonian dialect observable in the Greek of the New Testament: a dialect spread over Asia Minor by the conquests of Alexander (thus singularly facilitating the diffusion of Christianity), and disused after the fall of Jerusalem.[3]

It is the admission of the late J. Blanco White[4], "No well-instructed person doubts that the first three

[1] Quoted in J. Newman's Arians, p. 81.

[2] Epist. ad Pammach.

[3] Two Discourses before the University of Durham, 1843.

[4] Life, iii. 187.

" gospels were written in Judea by Jews, very near the " time of Jesus."

Some important evidence, especially as to the fourth Gospel, has been elicited by the Chevalier Bunsen, in his researches into the writings of Ignatius and Hippolytus, in the course of which he combats the theory of Baur and Strauss, who place the date in the end of the second century, by showing that "the very words of S. John are evidently alluded to" in the writings mentioned before the middle of that century.[1]

[1] Hippolytus and his Age, &c. London, 1852, vol. i. p. 42; and vol. iv. Preface, xxv.

INDEX.

INDEX.

Adams, Prof., 153.
Ahaz, dial of, 316.
Alchemy, 100, 156.
Analyst, Bp. Berkeley, 125.
Alford, Dean, *note*, 317.
Ananias and Sapphira, 331.
Anaxagoras, 14, 17.
Ancient geology, 18.
Antipodes, 39, 449.
Apostolic miracles, Rationalistic view of, 330.
Apostolic powers, 454.
Apparitions, 262.
Archæology, 208.
Arnold, Dr., 163, 420, 438.
Aristarchus, 15.
Aristotle, 13, 14, 21.
Aristotelian system, 31.
Ascension, Rationalistic view of, 330.
  Mythic view of, 345.
  Doctrinal, 423, 458.
Astrology, 33, 175.
Atheism in France, 144.
Augustine 324, *note*, 483.
Authority rejected in philosophy, 71.

Babbage, Mr., 284, 297.
Bacon, 59.
  on First Cause, 60.
  on Final Cause, 60.
  on Atheism, 61.
  on Natural Theology, 62.
  on Reason and Faith, 62.
Bacon, on Scripture, 63.
  on Mysteries, 64.
  Confession of Faith, 68.
Baconian philosophy, 69.
Baird, Mr. J., *note*, 266.
Barrow, Dr. I., 384.
Baur, 480, 485.
Berkeley, Bp., 129, 213.
  physical views, 130.
  Analyst, 125.
  Siris, 132.
  Order of Nature, 131.
  Theory of Vision, 473.
Bekker, 90.
Belief in different ages, 430.
Belief in Miracles subjective, 369.
Biology, *note*, 172.
  Electro, *note*, 264, 328.
Blount, 127.
Bolingbroke, 127.
Bond, Prof., 153.
Boyle, philosophy, 87.
  Theology, 88.
Boys, Rev. T., 385.
Brewster, Sir D., 100, 102, 108.
Bradley, Dr., 155.
Bray, C., Philosophy of Necessity, *note*, 264.
Brodie, Sir Benjamin, 393.
Bronn, Prof., 455.
Brown, Dr. T., on Miracles, 303.
Browne, Sir T., "Vulgar Errors," 83, 84, 222.

Buckle, H. T., History of Civilization, 54, 83, 204, 475 *note.*
Buffon, 162.
Bunsen, Chev., Hippolytus, *note*, 426, 485.
Burnett, T., Sacred History of Earth, 111.
Butler, Bp., 133.
Laws of Nature, 134, 205.
Miracles, 135, 297.

Cana, Miracle at, 323, 362, 422.
Catcott, 161.
Carpenter, Dr., on Miracles, 304.
Cartesians, 78.
Causation, 233, 234, 475, *note*, 477.
Challis, Prof., 153.
Chambers, Mr. R., *note*, 56, 175.
Chemistry, 156.
Chloroform, 445.
Christianity and the ancient philosophy, 29, 427 *note.*
Chrysostom, 417.
Chubb, 127.
Church, belief of, 459.
Cicero, Inductive Philosophy, 20, 23.
Theism, 25.
Clairault, 142.
Clement of Rome, 418, 482.
Alexandria, 484.
Collins, 127.
Comets, fear of collision, 116.
of 1680, 117.
Progress of ideas respecting, 118, 164.
Comte, A., 188.
Combe, Mr., 205, 286.
Conjunction of planets, 175, 317 *note.*
Continuity, 155, 279.
Conversion of St. Paul, 332.
Conviction, spiritual, 427, 432, 436.
Copernicus, 40, 49.
Correlation of forces, 202.
Cosmogony, Hindoo, 17.
Egyptian, *ib.*
Cosmogony, Chinese, 17.
Peruvian, *ib.*
Hebrew, 110, 111.
Cosmical argument, 230, 233, 441.
Cosmos among the Ancients, 19, 21.
Cosmo-Theology, 241.
Cosmical views, progress of, 153, 229.
Coquerel, Ath., on Miracles, 301.
Craig, 148.
Cousin on Causation, 234.
Creation, metaphysical argument, 21, 255.
Physical argument, 250, 455, 468.
argument from Revelation alone, 526, 437, 468.
Credibility, physical, 260, 291.
Creeds, 477.
Crucifixion, Rationalistic view of, 329.
Cudworth, 92.
Cuvier, 169.

Davy, Sir H., 179.
Physical discoveries, 130.
Theological views, 181.
Death and Sin, 446.
Deists of 17th century, 126.
Deluge, 115, 163.
Demoniacs, 89, 101.
Rationalistic view of, 325, 382.
Descartes' philosophy, 75.
Theology, 76.
on Mysteries, 77.
Persecution of, 78.
Design, argument of, 235.
Diluvial hypothesis, 111.
Dockray, Mr., *note*, 56, 132.
Doctrinal theory of Miracles, Neander, 364.
Doctrinal belief in Miracles, 371, 375, 457.
Documentary evidence of the Gospels, 284, 352, 478.
Dodwell, Dr., *note*, 413.
Douglas, Bp., *note*, 325.

Ecclesiastical Miracles, 411.
Arguments against, 418.
for, 399, 406, 421.
Edinburgh Review, 219, 248, 395, 469.
Egeria, by Mr. Dockray, *note*, 56.
Eichorn, 326.
Elemental systems of the Ancients, 20.
Encke, Prof., *note*, 317.
Eruvin, by Dr. Maitland, 385.
Ethnology, 208.
Eusebius, 30, 482.
Everett, Mr., 42.
Evidences external and internal, 433.
Evidential argument, 282, 430.
Ewald's theory of Miracles, 358.
Extraordinary physiological phenomena, 271.
Exodus, 316.

Faith and Reason, Bacon's view, 68.
in general, 429.
Fall, the, 444.
Fancourt Miss, 385, 393 *note*.
Faraday, Prof., 472.
Fathers, testimony of, to Ecclesiastical Miracles, 406, 417.
Fathers, Testimony of, to New Testament, 352, 481.
Feuerbach, Second Causes, 234.
Theory of Miracles, 353.
on Creation, 255,
Final Causes, 169.
among the Ancients, 23, 24.
First and Second Causes, 234.
Fludd, R., mystical theories, 35,
Foscarinus, 50.
Foucault, 155.
Frauds, pious, 484.
Future life, 449.

Galileo, opposition to his discoveries, 43.
his persecution, 46.
not a peculiar case, 48.
Gallé, Dr., 153.
Gassendi, 93.
Genealogies of Christ, 341.
Generelli, 162.
Geology, origin of, 158.
Mystical views of, 158.
Rational views of, 160.
Geoffroy de St. Hilaire, 169.
Gibbon, 152, 414.
Gospels, origin of, 284, 351, 480.
Gosse, Mr., 221.
Grant, R., History of Astronomy, 144.
Grotius on Miracles, 73, 384.
Physiological speculations, 74.
Grove, Mr. W. R., 202.

Hallam, Lit. of Europe, 35, 57, 109, 121.
Halley, 99.
Geological ideas, 110.
Cosmical researches, 114.
Hamilton, Sir W., 234, 256 *note*.
Hampden, Bp., *note*, 38.
Hare, Arch., 186.
Healing of diseases, Rationalistic view of, 327.
Hesiod, 21.
Henderson, Dr., 316.
Herbert of Cherbury, Lord, 74.
Hinton, Mr., 474.
Hipparchus, 17.
Historical criticism, 312.
Holland, Sir H., *note*, 254, 264.
Horner, Mr. L., 209.
Hobbes' philosophy, 79.
Theology, 80.
Second Causes, 81.
Scripture, 80, 82.
Charges against him, 82.
Hooke, R., on geology, 114.
on gravitation, 98.
Humboldt, A., *note*, 22, 167, 252.
W., 209.
Hume, 137.
Miracles, 138, 280, 289.
Physical views, 138.

Hume, Argument of Design, 139, 236.
Causation, 140, 476.
Faith, 280, 431.
Hutchinson, Mystical System, 112.
Hutton, 160.

Ideler, Dr., *note*, 317.
Ignatius, 418.
Immutability, Divine, 245.
Incarnation, the, *note*, 427, 430, 459.
Influence of science, 211.
Internal evidence of Christianity, 434.
Interruptions of natural order, 152, 229.
Interpolations in New Testament, 479.
Irenæus, *note*, 406, 483.

Jerome, *note*, 427, 482.
Jortin, Dr., 408.
Josephus, *note*, 326, 329.
Joule, Mr., 202.
Judgments, temporal, 207, 454.

Kant on Natural Theology, 198, 476.
Kepler, 41.
Kingsley, Mr., on Miracles, 304.
Sermons, 206.

Lagrange, 142.
Lalande, 150.
Lamarck, 173.
Laplace, 142.
Stability of Planetary System, 143.
Final Causes, 145.
on Testimony, *note*, 267.
Lassell, Mr., 153.
Law and Gospel, 5.
Lazarus, raising of, 328, 362, 370.
Leibnitz, his philosophy, 103.
Theological views, 105.
Idea of natural order, 107.
geology, 108.
Lee, Dr. R., *note*, 206.
Le Verrier, 153.
Life, theory of, 170, 474.
Lightfoot, Dr., *note*, 325.
Limitations of Science, 232.
Lister, Theory of the Earth, 114.
Livy, prodigies in, 67, 415.
Lyall, Dean, on Miracles, 287, 414, 435.
Lyell, Sir C., 162.
Loaves, miracle of, 323.
Locke, philosophy, 121.
Theology, 122, 413.

Mackay, Mr., 484.
McNeil, Rev. H., 384.
Magi, Star of the, *note*, 317.
Magic, 261.
Maitland, Rev. Dr., 385.
Maltby, Bp., 484.
Mandeville, 127.
Manna, 316.
Mansel, Bampton Lectures, *note*, 242, 256, 388.
Marvellous events, 268, 274.
Materialism and Christianity, 177, 453, 469.
Mayo, Dr. H., 263, *note*, 267, *note*, 329.
Mesmerism, 176, 263.
note, 264, and 328.
Metaphysical theology, 72.
Theories of 17th century, 91, 93, 94.
and physical views, 293.
Middleton, Dr. C., 137, 395, 411.
Miller, Hugh, 187, 218.
Miracles, Bacon's view of, 67.
Miracles, discussion of, 282, *et seq.*
and Mysteries, 101, 112, 122, 127, 293.
as parts of a greater system, 297.
Christian, explained away by Jews and Heathens, 348.
Messianic, 361.
of the Old Testament, 315.
by implication, 322.
by exaggeration, 323.

Miracles of the Church, 55, 384, 397.
modern, 384, 394.
in passing events, 382.
as part of manifestation of Christ, 365, 368, 371.
objects of faith, 354, 366, 428, 439.
Modern Miracles, disbelief in, 259.
Montaigne, 51.
Cosmical views, 52.
on Theism, 53.
on Miracles, *ib.*
Scepticism, 54.
Moral and metaphysical grounds of Natural Theology, 243, 245.
Moral and physical speculation, 16.
Moral order of the world, 203, 455.
Morgan, 127.
Moro, 162.
Mosaic Cosmogony, 164.
"Moses's Principia," 113.
Mosheim, Dr., 29.
Motion of Solar System, 154.
Scholastic notions of, 45.
Mysterious doctrines of Christianity, 293, 376, 457.
Mysticism in early science, 12.
Myths, 275, 376, 427.
Mythic theory of Miracles, 334.

Nativity, Naturalistic view of, 324.
Mythic view of, 344.
Natural history, 167.
Natural theology
among the Ancients, 25,
in the Middle Ages, 35.
in 17th century, 123,
recent, 199.
limits of, 240.
Naturalistic interpretation of Miracles, 319.
Nature, book of, 238.
Neander, Dr., 331, 365.
Nebular theory, 147.
Necessity, 24.
Nemesis of Faith, 426.
Neptune, discovery of, 153.
Newman, Dr. J. H., on Ecclesiastical Miracles, 399, 401.
on Miracles generally, 439.
Prof. F. W., 163, 441, 476.
Newton, epoch of, 96.
his Discoveries, 97.
Character, 98.
Opinions and pursuits, 99.
Theology, 100.
Planetary perturbations, 101.
Belief in Miracles, 102.
Hesitation in mysteries, *ib.*
Influence of his philosophy, *ib.*
Geological ideas, 110.
Numbers, mysticism of, 50.

Observer, Christian, 1830, on modern Miracles, 386, 389.
Œrsted, Physical Discoveries, 201.
Soul in Nature, *ib.*
Omnipotence, Divine, 247, 292, 437.
Omphalos, 221.
Oracles of the Ancients, 120.
Origen, argument on Miracles, 283.
Origin of Gospels, 341, 365, 480.
of man, 209, 446.
of species, 465.
Orthodoxism and scepticism, 425.
Oxford Essays, 139, 150, 242, 244, 353 481.

Pantheism, 26, 178, 441.
Paris, Abbé, Miracles, 394.
Paracelsus, 86.
Parallel of Ecclesiastical and Scripture Miracles, 387, 401, 405.
Parallelism of Miracles with functions of Church, 421.
Pascal, 90, 438.
Paulus, 319, 321.
Pentecost, 331, 345.

Philolaus, *note*, 21.
Philosophy and faith, 217.
Phlogiston, 157.
Phrenology, 177.
Physical Language of Scripture, 442.
Evil, 445.
Belief, 477.
Physiology, 169.
Pious frauds, 484.
Planetoids, 154, 165.
Plastic nature, 92.
Platonism, 27.
Connexion with Christianity, 28.
Pliny, 17, 327.
Plurality of Worlds, 119.
Plutarch, *note*, 21.
Playfair, Prof., 146.
Pontecoulant, 143.
Portlock, Maj.-Gen., 222.
Port Royal Miracles, 394.
Positive Philosophy, 187.
Positivism, bearing on theology, 193.
Pratt, Archd., 223.
Priestly, Dr., 157.
Pritchard, Rev. C., *note*, 317.
Prodigies in Livy, 415.
Propagation of Christianity by Miracles, 283, 416.
Psychological theory of Miracles, 358, 360.
Ptolemaic astronomy, 33.
Punctuation, 57, *note*.
Pusey, Dr., 383.
Pythagoras, 14, 21.

Rainey, Mr., 469.
Rammohun Roy, 285.
Rankine, Mr., 202.
Rationalism, 184.
Rationalistic view of Miracles, general principles of, 309.
Ray, geology, 111.
Resisting medium, 114.
Resurrection of Christ, Naturalistic view, 329.
mythic, 345.
other views, 362, 370, 431, 457.
future, 451.
Revelation, spiritual, 277.
Rigaud, Prof., 99.
Rev. S. J., 111, *note*.
Romanist Miracles, 409.
Royal Society, 89.

Satellites, new, 153.
Scepticism in the Middle Ages, 37, 55.
in France, 144, 151.
at present day, 214.
Scholastic Physics, 34.
Schleiermacher, 480.
Science, its influence on theology, 6.
its origin, 12.
Scientific institutions, 202.
Scot, Reginald, 57.
Sebonde, 35, 61.
Sedgwick, Prof., 205.
Semler, 319, 325.
Seneca, physical causes, 20.
Shaftesbury, 127, 128.
Shakspeare, 57.
Shower of stones, 315.
Sin and death, 446.
Smith, Dr. Pye, 297.
Sodom and Gomorrah, destruction of, 316.
Solar System, Bacon's argument, 65.
Species, origin of, 172-3, 253.
Spirit-rapping, *note*, 264, 265.
Spiritual influence, 453.
Spiritualised view of Miracles, 439, 457.
Spinoza, 93.
Sprat, Bp., 89.
Stanley, Lord, 204 *note*.
Stillingfleet, Bp., 78 *note*.
Stobæus, *note*, 21.
Strabo, 18.
Strauss, Life of Jesus, 334.

Strauss, General view of Myths, 337.
Criticisms on the Gospels, 341.
Messianic Myths, 343,
General remarks on his theory, 345.
Doctrinal views, 349.
Subjective theory of Miracles, 353.
Sun and moon standing still, 316.
Supernatural, the, 231, 240, 248, 295.

Teleology, 169.
Terrestrial physics, 154.
Tertullian, 27.
Testé, Dr., *note*, 263.
Testimony, value of, 147, 148.
Theistic argument for Miracles, 292.
Theodicea, Leibnitz, 105.
Thomson, Prof. W., 202.
Tillotson, Abp., 289, 384.
Tindal, 126.
Toland, 127.
Travers, Mr., 393.
Transubstantiation, 289, 478.
Tracts for the Times, on the Canon, 481.
on Miracles, 405, 422, 427 *note*.
Trent, Catechism of, *note*, 289.
Trench, Dean, *note*, 302, 327.
Tulloch, Dr., 200.
Tycho Brahe, 50.

Vallisneri, 162.
Vanini, *note*, 285.
Van Helmont, 86.
Van Mildert, Bp., *note*, 241.
Verbal disputes, 42.
Vestiges of Creation, 173.
Virgil, *note*, 27.
Volition, Divine, 244.

Unity of composition, 169.
Universe, theories of, in 16th century, 59.
Universities, 202.

Walking on the sea, 322.
Waterland, Dr., *note*, 413.
Whately, Abp., on Miracles, 301.
Whewell, Dr., 39, 66, 200.
Whiston, theory of earth, 112.
Theological views, *ib.*, *note*, 413.
Witchcraft, 57, 89, 261, 455.
Wilks, Rev S. C., 393.
Wiseman, Cardinal, *note*, 329.
Wolfenbuttel Fragments, 320.
Wollaston, Religion of Nature, 133.
Woodward, geological theory, 112.
Woolston, theory of Miracles, 136, 335
Worship of elements, 26.
Wren, Sir C., 98.
White, J. Blanco, 484.

Xenophon, 24.

Young, Mr. J. R., 284.

Zodiacal light, 165.

THE END.

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